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Query Match Best Local	BASE COUNT ORIGIN	source	FEATURES	JOURNAL	TITLE	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	LOCUS	AR110775	RESULT 1
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Sequence 3 from patent US
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Semple,S.C., Klinuk,S.K., Harasym,T., Hope,M.J., Ansell,S.M.,
Cullis,P., Scherrer,P. and Debeyer,D.
Charged therapeutic agents encapsulated in lipid particles
containing four lipid components
Patent: US 6287591-A 15 11-SEP-2001;
                     AR073978.1
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Monia, B. P. and Boggs, R.T.

Antisense oligonucleotide modulation
Patent: US 5952229-A 2 14-SEP-1999;

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Liposomes containing oligonucleotides
Patent: US 6126965-A 2 03-OCT-2000;
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                                                                                      Antisense oligonucleotide regulation of raft gene expression
Patent: JP 2000152797-A 2 06-JUN-2000;
ISIS PHARMACBUTICALS INC
OS Homo sapiens (human)
PN JP 2000152797-A/2
PD 16-JUN-2000
PP 18-JUN-2000 JP 2000008654
PR 31-MAY-1994 US 08/250856
PR 31-MAY-1994 US 08/250856
PC C12N15/09,A61K31/7088,A61K48/00,A61P17/06,A61P35/00,A61P43/
PC C12N15/09,A61K31/7088,A61K48/00,A61P17/06,A61P35/00,A61P43/
PC C12N15/00,A

FT SOurce 1.20
FT SOurce /Organism='Homo sapiens (human)'.
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13; Conserv
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                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
1 (bases 1 to 20)
P,M.B. and T,B.R.
                                                                                                                                                                                                                                                                                                             Homo sapiens
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Love, W. Guy, Nicklin, P. Leslie, Hamilton, K. Ophelia
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31-MAY-1994 US 08/250856
MONIA BURETTO P, BOGGUZU RUSSELL T
C12N15/09, A61K31/7088, A61K48/00, A61P17/06, A61P35/00, A61P43/00,
C12N15/00, A
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                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
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                                                                                                                                                                                                                                        Amplifications of chromosomal region indicator in breast cancer Patent: US 5801021-A 7 01-SEP-1998;
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Gray, J.W., Collins, C.,
                                                                                                                                                                                                                                                                                                         Unknown.
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Monia, B.P. and Bog
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    Barany, F., Zirvi, M., Gerry, N.P., Favis, R. and Kliman, R. Method of designing addressable array for detection of nucleic sequence differences using ligase detection reaction Patent: WO 0179548-A 1318 25-OCT-2001; CORNELL RESEARCH FOUNDATION, INC. (US)
                                                                                    synthetic construct
synthetic construct
artificial sequence.
                                                                                                                                         Sequence 1318 from Patent AX289556 AX289556.1 GI:17051239
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Gray, J., Collins, C., Hwang, S., Godfrey, T
Genes from the 20013 amplicon and their
Patent: US 5892010-A 15 06-APR-1999;
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1 (bases 1 to 20)

Monia, B. P. and Boggs, R.T.

Montisense oligonucleotide modulation
Antisense oligonucleotide 3 14-SEP-1999;
Patent: US 5952229-A 3 14-SEP-1999;
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Stinchcomb,D.T. and McSwiggen,J.A.
Interleukin-2 receptor gamma-chain ri
Patent: US 5807743-A 172 15-SEP-1998;
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seryl tRNA	AAI99804	24	41	78.7	11.8	32
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Composition containing lipid-encapsulated therapeutic agent useful, e.g. for delivering antisense molecules or ribozymes or treating diseases associated with aberrant gene expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This is the nucleotide sequence of the human antisense c-raf-1 oligodeoxyribonucleotide (ODN/oligo), used in the method of the invention to directly target tumour tissue, and in cancer radiation therapy. The products can be used in a method of radiosensitising tumour tissue by addition of an antisense oligonucleotide of maximum 40 bases containing ODN/oligo. The liposome carrier system directly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New cationic liposome composition containing raf oligodeoxynucleotide - can be used to directly target tumour tissue and is useful in the radiation therapy of cancers
                                                                                                                            14-MAY-1997;
                                                                                                                                                   14-MAY-1998;
                                                                                                                                                                                                                                         Key
modified_base
                                                                                                                                                                                                                                                                                                            Antisense oligonucleotide; human c-raf-1 protein kinase gene; phosphorothioate; phosphodiester; lipid-encapsulation; tumour; aberrant gene expression; treatment; inflammation; infection; ss.
                                                                                                                                                                                                                                                                                                                                                                                                       AAV99435;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40 bases containing ODN/oligo. targets tumour tissue and has t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dritschilo
                                                                      Klimuk
                                                                                                      (INEX-) INEX PHARM CORP
                                                                                                                                                                                               WO9851278-A2
                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                         Antisense oligonucleotide directed against c-raf-1 protein kinase
                                                                                                                                                                                                                                                                                                                                                                                 22-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                             AAV99435 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GEOU ) UNIV GEORGETOWN
                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GTGCTCCATTGATGC
                                               1999-045179/04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1998-532155/45.
                                                                    SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4; Page 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                    Cullis P,
Scherrer F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP; 2 A; 4 C; 4 G; 5 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                            97US-0856374
                                                                                                                                                   98WO-CA00485
                                                                                                                                                                                                                                           Location/Qualifiers
1..15
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                                                                                                                                                                                                                                                                                                                                                                                                                             DNA; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                    ָש
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                                                                               Debeyer D,
                                                                                                                                                                                                                    "phosphorothicate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English
                                                                    Semple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           has the potential for use in the radiation
                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kasid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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Pred. No.
                                                                      SC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ď
                                                                               Harasym
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rahman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
29;
                                                                                                                                                                                                                    or phosphodiester bonds"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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                                                                                                                                                                                                                                                                                                                                                         gene
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XX
XX
XX
XX
The present sequence represents an antisense oligonucleotide directed consideration to the human c-raf-1 protein kinase gene. The oligonucleotide can against the human c-raf-1 protein kinase gene. The oligonucleotide can comprising lipid-encapsulated using the method of the invention. A composition comprising lipid-encapsulated particles of a therapeutic agent, comprising lipid-encapsulated particles of a therapeutic agent of the unixture of oligonucleotides, is prepared by mixing at least 2 lipids continuous solution of charged therapeutic agent to form an intermediate mixture to neutralise at least some of the external surface contarges on the particles. One lipid has a (de)protonatable group with contarges on the particles. One lipid has a (de)protonatable group with contarges on the particles of the intermediate mixture to neutralise at least some of the external surface contarges on the particles. One lipid has a (de)protonatable group with contarges on the particles one lipid has a (de)protonatable group with the particles of the particles of the particles of the buffer maintains this contarged form (i.e. cationic when the therapeutic agent is contarged form (i.e. cationic when the therapeutic agent particle agent particles of the composition is used to introduce therapeutic agent particles. The composition is used to introduce therapeutic agent particles. The composition is used to introduce therapeutic agent particles. The composition is used to introduce therapeutic agent particles in vivo or in vitro, particularly to treat or prevent diseases associated with aberrant gene expression in mammals, specifically tumours, so inflammation or infection.

XX

Sequence 15 BP; 2 A; 4 C; 4 G; 5 T; 0 other;
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RESULT 3
В
                                                                                                                                                                                                                                                                                                                     QY
                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                      Matches
                            (HOPE/)
(ANSE/)
(CULL/)
             (MOKW/)
                                                 (KLIM/)
(HARA/)
                                                                       14-MAY-1998;
                                                                                      13-MAY-1999;
                                                                                                     14-NOV-1999.
                                                                                                                   CA2271582-A1
                                                                                                                                                       misc_feature
                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                         Antisense oligonucleotide; phosphorothicate; inflammatory disease;
                                                                                                                                                                                                                          Human c-raf-1
                                                                                                                                                                                                                                        05-JUN-2000
                                                                                                                                                                                                                                                                    AAZ98661 standard;
                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                            infectious disease;
      (SEMP/)
                                                                                                                                                                                                                                                                                                         1
                                                                                                                                                                                                                                                                                                                  GTGCTCCATTGATGC
                                                                                                                                                                                                                                                                                                         GTGCTCCATTGATGC
     HOPE M J.
ANSELL S M.
CULLIS P R.
MOK W W K.
SCHERRER P.
SEMPLE S C.
                                                                                                                                                                                                                                                                                                                                     l Similarity
15; Conser
                                                                                                                                                                                                   gene therapy; aberrant gene expression;
                                                 HARASYM
                                                          KLIMUK
                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                         PK therapeutic antisense oligonucleotide sequence ATG-AS
                                                         S
                                                                       98US-0078955
                                                                                       99CA-2271582
                                                                                                                                                       Location/Qualifiers
1..15
                                                                                                                                         /note=
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                                                                                                                                                                                                                                                                     DNA;
                                                                                                                                                                                           protein kinase C
                                                                                                                                                                                                                                                                                                                                            100.0%;
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                                                                                                                                  "Optionally phosphorothicate internucleotide linkages"
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                                                                                                                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                                                     0;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                            alpha;
                                                                                                                                                                                                                                                                                                                                              DB
29;
                                                                                                                                                                                             c-raf-1
                                                                                                                                                                                                                                                                                                                                                    20;
                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                            protein
                                                                                                                                                                                             kinase;
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RESULT 4
AAD22797
ID AAD2
XX AAD2
XX AAD2
XX Yrea
DE Huma
XX Trea
KW Gist
KW DOPH
KW DOPH
KW DONH
KW DONH
KW DONH
FT modi
FT modi
FT modi
FT T
XX US6:
XX 11-:
XX 15--
XX 11-:
XX 15--
XX 11-:
XX 15--
XX 11-:
XX 15--
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence represents an antisense oligonucleotide sequence which has human c-raf-1 protein kinase as its target gene. The oligonucleotide is used in a method for delivering lipid encapsulated therapeutic agents (i.e antisense oligonucleotides) to mammals. The lipid capsule comprises steric barrier lipids that prevent particle aggregation during lipid nucleic acid formation. The method may be used for the delivery of therapeutic agents to mammalian cells. It is especially suitable for delivering nucleic acid molecules, and in particular antisense molecules which may be administered to down regulate the expression of aberrant genes. The aberrant gene may be ICAM-1, c-myc, c-myb, ras, raf, erb-B-2, PKC-alpha, IGF-IR, EGFR, VEGF and/or VEG-R-1. The method may be used for the treatment of tumours, inflammatory diseases and/or infectious
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       distearoylphosphatidylcholine; palmitoyloleoyl phophatidylcholine; DSPC; POPC; 1,2-dioleoyl-sn-3-phosphoethanolamine; cholesterol; SM; DOPE; inflammation; C-raf-1 protein kinase gene; human; infectious disease. se
  WPI; 2002-024658/03
                                               Semple SC,
Scherrer P,
                                                                                                                                                                   14-MAY-1997;
                                                                                                                                                                                                                  14-MAY-1998;
                                                                                                                                                                                                                                                               11-SEP-2001
                                                                                                                                                                                                                                                                                                              US6287591-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human c-raf-1 protein kinase antisense oligonucleotide, ATG-AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAD22797;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 5; Page 57; 99pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     capsules
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Scherrer P,
                                                                                                                                                                                                                                                                                                                                                                                                                                modified_base
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15; Conser
                                                                                                                      INEX
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Semple
                                            Klimuk SK,
Debeyer D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; ilarity 100.0%; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                      PHARM CORP
                                                                                                                                                                   97US-0856374
                                                                                                                                                                                                                98US-0078954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 A; 4 C;
                                                                                                                                                                                                                                                                                                                                                                                                    /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                      /mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA; 15
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                                                                                                                                                                                                                                                                                                                                                        "Optionally phosphorothicate backbone"
                                                                     Harasym
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 G;
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Pred. No.
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                                                                     Ansell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 15;
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                                                                     SM,
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                                                                     Cullis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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CC lipid component selected from lipids containing a protonatable or that the lipid is in charged form at a first pH and in neutral form at component is further selected from lipids containing a protonatable or that the lipid is in charged form at a first pH and in neutral form at camponent is further selected such that the charged form is cationic component is selected from lipids that prevent particle aggregation countries lipid enterapeutic agent particles formation and which exchange cout the lipid particle at a rate greater than PEG-Cerc20; third lipid component is a neutral lipid selected from distearoylphosphatidylcholine (DSPC), palmitoyloleoyl phophatidylcholine (POPC), 1,2-dioleoyl-sn-3-cc phosphoethanolamine (DOPE) or SM (Sphingomyelln) and a fourth lipid component which is cholesterol. Compositions of the invention are used component which is cholesterol. Compositions of the invention are used conformed preferably ICAM-1 (Intracellular adhesion molecule-1), c-myc, c-myc, raf, erb-B-2, PKC-alpha (phosphothanase C-alpha), IGF-IR cc (insulin growth factor 1-receptor), bc1-2, EGFR (epidermal growth factor creceptor), in a mammal or by inflammations such as tumour or an cc infectious disease. The present sequence is an antisense oligonucleotide cargetted to human c-raf-1 protein kinase gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a composition useful for treatment tumours. The composition comprises lipid-therapeutic agent propositing a lipid portion and a charged therapeutic agent encapsulated in the lipid portion. The lipid portion comprise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Composition useful for treatment of e.g. tumors comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lipid portion and a charged therapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               lipid-therapeutic agent particles harged therapeutic agent which is The lipid portion comprises a first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                particles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of
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Query Match Best Local S Matches 15 1 1 GTGCTCCATTGATGC GTGCTCCATTGATGC l Similarity 15; Conser 100.0%; ilarity 100.0%; Conservative (15 15 0; Score 15; Pred. No. Mismatches DB 24; 0; Length 15 Indels 0 Gaps

0,

Sequence

15

BP;

2 A;

4 C;

4 G;

5 T;

0 other;

망 Q

RESULT 5 AAT27527 04-JUL-1996 AAT27527 standard; DNA; Mouse/rat c-raf start translation region antisense oligunucleotide. AAT27527; (first entry) 20

Antisense; psoriasis; anti-proliferative; tumour;
restenosis; 3' untranslated untranslated cancer; region;

Synthetic.

WO9532987-A1

07-DEC-1995

31-MAY-1995; 95WO-US07111

31-MAY-1994; 94US-0250856

(ISIS-) ISIS PHARM INC

RΤ, BP;

WPI; 1996-030518/03

Oligo:nucleotide(s) targetted to nucleic acids encoding human

raf

밁 Qγ

В Š

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RESULT 6
AAZ11557
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                               26-NOV-1996;
31-MAY-1994;
31-MAY-1995;
The invention provides antisense oligonucleotides targeted to mRNV encoding human raf and capable of inhibiting raf expression. The antisense oligonucleotides are useful for treating and diagnosing abnormal proliferative states and hyperproliferation (e.g. cancer, psoriasis, or blood vessel restenosis), and inhibiting raf express sequences Z115511-564 represent antisense oligonucleotides for mou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAT27521-T2754 are antisense oligonucleotides against both rat and mouse c-raf kinase. They can be used for the inhibition of raf expression. The oligonucleotides (ONS) are targeted to either coding region, start signal or 5′ or 3′ untranslated region (UTR) mRNA encoding mouse/rat c-raf. The ONs are phosphorothicate linked. The ONS are used to inhibit expression of rat and mouse raf. The ONS can be used in partic. In conditions associated with hyperproliferation e.g.
                                                                                                                                    Disclosure; Column 15;
                                                                                                                                                                                                           Oligonucleotides targeted to human raf mRNA useful for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  capable of inhibiting raf expression, used in treatment hyper:proliferative disorders
                                                                                                                                                                                          diagnosing
                                                                                                                                                                                                                                                  WPI; 1999-527018/44.
                                                                                                                                                                                                                                                                                                                          (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                         26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ11557 standard;
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                                                                                                                                                                                                                                                                                       RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diagnosis; abnormal proliferative state; hyperproliferation;
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15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           psoriasis;
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                                                                                                                                                                                            abnormal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  c-raf
                                                                                                                                                                                                                                                                                                                                                             96US-0756806.
94US-0250856.
95WO-US07111.
                                                                                                                                                                                                                                                                                                                                                                                                                                       96US-0756806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         blood vessel restenosis; c-raf;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA;
                                                                                                                                                                                          proliferative states
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              specific antisense oligo ISIS # 10711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
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                                                                                                                                  29pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                  English.
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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 expression.
for mouse a
                                        cancer,
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Length Indels

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Query Match Matches

Sequence

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RESULT 7
AAA73535
ID AAA7
XX AAA73535
AAA735335
AAA73535
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Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-MAY-1994;
31-MAY-1995;
26-NOV-1996;
                                                    c-raf is a serine-threonine-specific protein kinase and is thought to play a fundamental role in signal transduction, and cell proliferation control. The present sequence is an antisense oligonucleotide. This sequence is targeted to mouse and rat c-raf genes, resulting in c-raf expression inhibition. The present sequence may be useful for treating and raf-rassociated cell hyperproliferation conditions such as cancer, hyperplasias, pulmonary fibrosis, anglogenesis, psoriasis, atherosclerosis and smooth muscle cell proliferation in blood vessels e.g. stenosis or restenosis following angioplasty. Also, the present sequence may be useful for treating inflammatory disorders such as tiss graft rejection, endotoxin shock and glomerular nephritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antisense oligonucleotides targeted to nucleic acid molecule encoding human raf useful for diagnosis, treatment of raf-associated cell proliferative conditions such as cancer, psoriasis or blood vessel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        signal transduction; hyperplasia; pulmonary fibrosis; anglogenesis; psorlasis; atherosclerosis; smooth muscle cell proliferation; steno restenosis; inflammatory disorder; tissue graft rejection; endotoxin shock; glomerular nephritis; mouse; rat; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Column 14; 31pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        proliferative conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Boggs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-JUL-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mouse and rat a-raf kinase antisense oligonucleotide #7 (Isis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-NOV-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   տ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
15; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Monia BP
   BP; 4 A; 4 C; 5 G; 7 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; llarity 100.0%; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94US-0250856.
95WO-US07111.
96US-0756806.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                kinase; antisense oligonucleotide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0143214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15
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Pred.
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Mismatches
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RESULT 8
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PR 03-JUI
PR 03-JUI
PR 03-JUI
PR 02-OC'
                                                                                  CC apable of modulating a process in a biological system. The method comprises: (a) introducing into the system a random library of nucleic comprises: (a) introducing into the system a random library of nucleic comprises: (a) introducing into the system a random library of nucleic caid catalysts (NAC) having a substrate binding domain (SBD), comprising a random sequence, and a catalytic domain (CD); and (b) identifying NAC can systems where modulation has occurred and/or determining the sequence of at least part of the SBDs in such systems. Nucleic acid molecules cof at least part of the SBDs in such systems. Nucleic acid molecules cof at least part of the SBDs in such systems. Nucleic acid molecules cof at least part of the SBDs in such systems. Nucleic acid molecules call invention, are used to modulate gene expression in plant and mammalian call invention, are used to modulate gene expression. They may also be used to calls and to cleave target nucleic acid, particularly for treating composition in composition in fection. They may also be used to detect genetic drift and mutations in diseased cells and to determine composition of the Raf gene, are used to treat cancer, restemosis, composition of the Raf gene, are used to treat cancer, restemosis, composition of the real cancer of sugaryphosphate modifications concreases stability against nuclease and activity. AAV90922 to AAV93877 composition according the method, specifically for meaning the second concerns that can be used in the method, specifically for meaning the second concerns and call the method.
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Karpeisky A
Parry T, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-DEC-1997;
09-MAY-1997;
09-JUN-1997;
03-JUL-1997;
03-JUL-1997;
22-AUG-1997;
02-OCT-1997;
02-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Identifying new catalytic nucleic acid that modulates selected processes - especially ribozymes that cleave Raf RNA for treating cancer, restenosis, and also new ribozymes and modified nucleoside triphosphates used as antiviral agents and synthons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 177; Page 146; 259pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 target; substrate; catalyst; modulation; expression; Raf gene; delivery; screening; identification; synthesis; deprotection; purification; cancer; inflammation; psoriasis; non-hepatic ascites;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-FEB-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (RIBO-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             infection; genetic drift; restenosis; rheumatoid arthritis; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1999-009494/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       c-raf; A-raf; B-raf; hammerhead ribozyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIBOZYME PHARM INC
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Reynolds M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Beigelman L,
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97US-0046059.

97US-0049002.

97US-0051718.

97US-0056808.

97US-0061321.

97US-0061324.

97US-0064866.
                                                                     expression
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, Matulic-Adamic J, Mc:
Sweedler D, Thompson J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17
                                                                     of a Raf
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on J, Workman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jarvis
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RESULT 9
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KW phos
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Matches 13
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                                                                                                                                                                                                                                      AAT27481-T27507 are human c-raf kinase antisense oligonucleotides use for the inhibition of raf expression. The oligonucleotides (ONs) are targeted to either coding region, start or stop signal or 5' or 3' untranslated region (UTR) mRNA encoding human c-raf. The ONs may be phosphorothioate linked and may contain modifications at the 2' position of the sugar moiety, ONs are pref. complementary to either 3' or 5' UTRs, phosphorothioate linked and contain 2'-O-alkyl sugar modifications. The ONs are used to inhibit expression of human raf in partic. in conditions associated with hyperproliferation e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oligo:nucleotide(s) targetted to nucleic acids encoding capable of inhibiting raf expression, used in treatment
                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hyper:proliferative disorders
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17
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3 GCTCCATTGATGC :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTCCATTGATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10;
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                                                                                                               Similarity
                                                                                                                                                                                                                      restenosis,
                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Monia BP
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hioate; 2' sugar mod
                                                                                                                                                                                 BP;
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                                                                                      Conservative
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1..20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15
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100.0%;
                                                                                                                                                                                 5 C; 4 G; 6 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sugar modification;
                                                                                                             100.0%;
                                                                                                                                    86.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "all bases opt. contain 2'-0-methyl or 2'-0-propyl sugar modifications"
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Pred. No.
                                                                                                             Score 13;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 phosphorothioate linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tumour; cancer; raf; oncogene,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               start site antisense
                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                              other;
                                                                                                                                  DB 17;
                                                                                                               4.3e+02;
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                                                                                                                                Length 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                restenosis;
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of
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                                                                                        Gaps
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RESULT 10
AAT62145
ID AAT62145
XX AAT622
XX AAT62
XX AAT62
XX Cance
KW Cance
KW Cance
KW Cance
KW Cance
FT misc.
FT misc.
FT misc.
FT FT Misc.
FT FT Misc.
FT FT Misc.
FT PR (CID)
XX (NOV:
PA (CID)
XX WPI;
XX WPI;
XX WPI;
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XX WPI;
XX Cance
PT Compx

RESULT 11
AAT59716
ID AAT59
XX
AC AAT59
XX
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                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                    Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                         A pharmaceutical composition has been developed comprising an oligonucleotide, targeted to human raf encoding mRNA, and an anionic polysaccharide. The present sequence represents a specifically claimed oligonucleotide for use in the composition. The composition can be used to treat mammalian cancer, especially human lung, stomach, renal, breast, laryngeal, pancreatic or colorectal cancer, or malignant melanoma. The anionic polysaccharide increases tumour uptake of the oligonucleotide, particularly an oligonucleotide targeted to human raf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cancer; anionic polysaccharide; human; renal cancer; breast cancer; laryngeal colorectal cancer; malignant melanoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human c-raf
                         AAT59716;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           polysaccharide, and oligo:nucleon human c-raf and dextran sulphate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-1997
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                                                                           AAT59716 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Composition for cancer treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1997-202610/18.
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                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-SEP-1996;
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                                                                                                                                                                                                1
                                                                                                                                                                                                                                           3 GCTCCATTGATGC 15
                                                                                                                                                                                                GCTCCATTGATGC
                                                                                                                                                                                                                                                                                           l Similarity
13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PL,
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CIBA GEIGY A
                                                                                                                                                                                                                                                                                                                                                                                                                                          mRNA.
                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 14; 21pp;
                                                                                                                                                                                                                                                                                                                                                                                          BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and dextran sulphate mRNA targetting oligonucleotide ON1
                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Steward A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and oligo:nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /*tag=
/note=
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                                                                           DNA;
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                                                                                                                                                                                                                                                                                                                 86.7%;
                                                                                                                                                                                                                                                                                                                                                                                          5 C; 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Phosphorothioate backbone; optionally being uniformly substituted at the 2'-position of sugar moiety by a methoxy group"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
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                                                                        ВP
                                                                                                                                                                                                                                                                                                                 Score 13;
; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                     G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                             Mismatches

    comprising anionic
    ide targeted to mRNA encoding

                                                                                                                                                                                                                                                                                                                      No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lung cancer; stomach cancer;
cancer; pancreatic cancer;
tumour; ss.
                                                                                                                                                                                                                                                                                           4.3e+02;
hes 0;
                                                                                                                                                                                                                                                                                                                                          DB 18;
                                                                                                                                                                                                                                                                                                                                     Length 20
                                                                                                                                                                                                                                                                                           Indels
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RESULT 12
AAZ11512
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Inhibiting human raf expression, partic. for treating cancer using an oligonucleotide targeted to mRNA encoding human raf entrapped in sterically stabilised liposome(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      laryngeal, pancreatic, colorectal cancer and malignant melanoma. In particular the compsns. can inhibit abnormal raf expression and retain anti-hyperproliferative activity after prolonged circulation in the bloodstream. They facilitate the reduction of accumulation of ONs in non-target organs and a reduction of acute and chronic side effects during prolonged treatment. ONI-10 are oligodeoxynucleotides with phosphorothicate backbones designed using the Genbank c-raf sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              stabilised liposomes are claimed. The compsns. can be used for inhibiting the expression of human raf. They can be used for the treatment of mammalian cancer, partic. human cancer e.g. lung, stomach, renal, breast,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T59716-28 are preferred oligonucleotides which are targeted to mRNA encoding human raf and are capable of inhibiting raf expression. Compositions containing the oligonucleotides entrapped in sterically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-SEP-1995;
01-AUG-1995;
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                         Human; raf; diagnosis; abnormal
                                                                    Human c-raf kinase antisense oligo ISIS # 5074.
                                                                                                                05-NOV-1999
                                                                                                                                                                                                     AAZ11512 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 16; Rage 18; 27pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hamilton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-JUL-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CIBA ) CIBA GEIGY AG
                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                 <del>س</del>ا
                                                                                                                                                                                                                                                                                                                                                            ω
                                                                                                                                                                                                                                                                                                                 inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             raf inhibitor oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                      l Similarity
13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ON1 is targeted to the translation initiation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP; 5 A;
                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Love WG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95GB-0019130
95GB-0015743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96WO-GB01775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antisense; liposome; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'note= "phosphorothioate backbone linkages"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag=
                                                                                                                                                                                                       DNA;
                                                                                                                                                                                                                                                                                                                                                        15
                                                                                                                                                                                                                                                                                                                                                                                                                          86.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                       20
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                                                                                                                                                                                                                                                                                                                                                                                                                             Score 13;
Pred. No.
proliferative state; hyperproliferation; restenosis; c-raf kinase; antisense; ss.
                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ON1.
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                                                                                                                                                                                                                                                                                                                                                                                                        DB 18;
. 4.3e+02;
ches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                        0;
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cancer; psoriasis; blood vessel

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Best Local S
Matches 13
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31-MAY-1994;
31-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention provides antisense oligonucleotides targeted to mRNA encoding human raf and capable of inhibiting raf expression. The antisense oligonucleotides are useful for treating and diagnosing abnormal proliferative states and hyperproliferation (e.g. cancer, psoriasis, or blood vessel restenosis), and inhibiting raf expression. Sequences AAXIISIL-573 and AAXIISIS-573 represent antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI;
             US6090626-A.
                                                                                                                                                  endotoxin
                                                                                                                                                         Human; c-raf; protein kinase; antisense oligonucleotide; cancer; signal transduction; hyperplasia; pulmonary fibrosis; angiogenesis; psoriasis; atherosclerosis; smooth muscle cell proliferation; steno restenosis; inclammatory disorder; tissue graft rejection;
                                                                                                                                                                                                                     Human c-raf kinase
                                                                                                                                                                                                                                                                  AAA73490;
                                                                                                                                                                                                                                                                                        AAA73490 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oligonucleotides targeted to human raf \mathfrak{mRNA} useful for treating diagnosing abnormal proliferative states and inhibiting raf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Boggs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-SEP-1999
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Homo sapiens.
                                                                                           modified_base
                                                                                                                                                                                                                                           28-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
nes 13; Conserv
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                                                                                                                                                                                                                                                                                                                                                             GCTCCATTGATGC
                                                                                                                                                                                                                                                                                                                                                 GCTCCATTGATGC
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                                                                                                                           sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Column
                                                                                                                                                   shock;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Monia
                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                          BP; 5 A;
                                                                                                                                                                                                                                          (first entry)
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95WO-US07111.
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           /*tag= a
/mod_base= OTHER
/mod_base= OTHER
/note= "All or some nucleotides are optionally with
/note= "All or some nucleotides are optionally with
2'-methoxyethoxy, or 2'-0-propyl modification. Also,
optionally phosphodiester or phosphothicate backbone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9;
                                                                                                    Location/Qualifiers
                                                                                                                                                glomerular nephritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for human c-raf kinase.
                                                                                                                                                                                                                                                                                                                                                                      15
                                                                                                                                                                                                                   antisense oligonucleotide #2 (Isis #5074, #7835, #7843).
                                                                                                                                                                                                                                                                                                                                                                                        86.7%;
100.0%; Pr
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                         5 C;
                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                          4 G;
                                                                                                                                                                                                                                                                                        BP.
                                                                                                                                                                                                                                                                                                                                                                                            Score 13; DB
Pred. No. 4.3
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                          6 T; 0 other;
                                                                                                                                                   SS
                                                                                                                                                                                                                                                                                                                                                                                                                  DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                       4.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                 Length 20
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RESULT 14
AAX16583/
ID AAX1
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Best Local S
Matches 13
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31-MAY-1995;
26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         c-raf is a serine-threonine-specific protein kinase and is thought to play a fundamental role in signal transduction, and cell proliferation control. The present sequence is an antisense oligonucleotide. This sequence is targeted to human c-raf gene, resulting in c-raf expression inhibition. The present sequence may be useful for treating and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 e.g. stenosis or restenosis following angioplasty. Also, the present sequence may be useful for treating inflammatory disorders such as tissue graft rejection, endotoxin shock and glomerular nephritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 31; Column 9; 31pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Antisense oligonucleotides targeted to nucleic acid molecule encoding human raf useful for diagnosis, treatment of raf-associated cell proliferative conditions such as cancer, psoriasis or blood vessel
                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                ovary; bladder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    raf-associated cell hyperproliferation conditions such as cancer, hyperplasias, pulmonary fibrosis, angiogenesis, psoriasis, atheroscierosis and smooth muscle cell proliferation in blood vessels
          Collins C,
                                                                                   07-OCT-1996;
                                                                                                            24-APR-1997
                                                                                                                                    W09714811-A1
                                                                                                                                                                                                            Human chromosome 20; position FLpter 0.825; chromosome abnormality; PCR primer; probe; hybridisation; detection; breast cancer; tumour;
                                                                                                                                                                                                                                                Position FLpter 0.825 chromosome abnormality PCR forward primer
                                                                                                                                                                                                                                                                          26-APR-1999
                                                                                                                                                                                                                                                                                                   AAX16583;
                                                                                                                                                                                                                                                                                                                            AAX16583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            restenosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ISIS-) ISIS
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                                  (REGC ) UNIV CALIFORNIA
                                                            20-OCT-1995;
                                                                                                                                                           Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                       GCTCCATTGATGC
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                                                                                                                                                                                                                                                                                                                                                                                          GCTCCATTGATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
13; Conser
                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Monia BP;
           Gray JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PHARM INC
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95WO-US07111.
96US-0756806.
                                                            95US-0546130
                                                                                   96WO-US16085
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 A;
                                                                                                                                                                                              head; neck; colon; comparative genome hybridisation;
                                                                                                                                                                                                                                                                                                                            DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                  15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86.7%;
           Kallioniemi
                                                                                                                                                                                                                                                                                                                            20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 13;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
           Ó
           Pinkel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.3e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          can be used to detect genomic amplifications in the 20q13 (especially the 20q13.2) amplicon, which is associated and indicative of the presence of a large number of cancers, e.g. primary tumours of breast, ovary, bladder, head and neck and colon cancers. The method uses the technique of comparative genome hybridisation (CGH) which is able to reveal amplifications and deletions in genomic chromosomes irrespective of genome rearrangements. However CGH also provides a more quantitative estimate of copy number than, e.g. Southern hybridisation, and also provides the localisation of the amplified or deleted region in a normal chromosome. Fluorescent in situ hybridisation was further performed using locus specific probes to confirm the CGH data and to precisely
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A method has been developed for detecting chromosomal abnormalities at about position Fipter 0.825 on the human chromosome 20. The method comprises: (i) contacting a chromosomal sample from a patient with at least 1 labelled probe, which binds to a target sequence at about position Fipter 0.825 on the human chromosome 20; and (ii) detecting the binding of the probes to the target sequence. AAX16548 to AAX16586 represent nucleic acid sequences to which the probes can hybridise. These nucleic acid sequences also represent PCR primers. The probes and method are the probes of the probes and method are the probes and method are the probes are present purposed to the probes and method are the probes are present probes.
                                                                                                                                                                                                                                                                                                                                                                                              Human chromosome 20; position FLpter 0.825; chromosome abnormality; PCR primer; probe; hybridisation; detection; breast cancer; tumour; ovary; bladder; head; neck; colon; comparative genome hybridisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Detection of abnormalities on human chromosome 20 at position 20q13 - is useful as indicator of presence of, e.g. primary breast tumours
                               Detection of abnormalities on human chromosome 20 at position 20q13
                                                                                                             Collins C,
                                                                                                                                                                                                                                                                                                       WO9714811-A1
                                                                                                                                                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX16555 standard; DNA; 20
                                                                         WPI; 1997-245126/22
                                                                                                                                                (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                      20-OCT-1995;
                                                                                                                                                                                                                          07-OCT-1996;
                                                                                                                                                                                                                                                                 24-APR-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-APR-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 9 A; 2 C; 5 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1997-245126/22
                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Position FLpter 0.825 chromosome abnormality PCR forward primer #4
             is useful as indicator of presence of, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17 TGCTCCATTGATTC 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 TGCTCCATTGATGC 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Page 15; 40pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                region of
                                                                                                           Gray JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                      95US-0546130
                                                                                                                                                                                                                            96WO-US16085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the amplification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 82.7%;
92.9%;
                                                                                                           Kallioniemi O,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 12.4; DB 18;
Pred. No. 9.6e+02;
0; Mismatches 1;
                                                                                                           Pinkel D,
             primary breast tumours
                                                                                                             Tanner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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represent nucleic acid sequences to which the probes can hybridise. These nucleic acid sequences also represent PCR primers. The probes and method can be used to detect genomic amplifications in the 20q13 (especially the 20q13.2) amplicon, which is associated and indicative of the presence of a large number of cancers, e.g. primary tumours of breast, ovary, bladder, head and neck and colon cancers. The method uses the technique of comparative genome hybridisation (CGH) which is able to reveal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A method has been developed for detecting chromosomal abnormalities at about position FLpter 0.825 on the human chromosome 20. The method comprises: (i) contacting a chromosomal sample from a patient with at least 1 labelled probe, which binds to a target sequence at about position FLpter 0.825 on the human chromosome 20; and (ii) detecting the binding of the probes to the target sequence. AAXI6549 to AAXI6586
                                                     chromosome. Fluorescent in situ hybridisation was further performed using locus specific probes to confirm the CGH data and to precisel map the region of the amplification.
                                                                                                                                          amplifications and deletions in genomic chromosomes irrespective of genome rearrangements. However CGH also provides a more quantitative estimate of copy number than, e.g. Southern hybridisation, and also provides the localisation of the amplified or deleted region in a normal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 2; Page 14; 40pp; English.
                                                                                           and to precisely
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Ω Query Match Best Local 9 Matches 17 TGCTCCATTGATTC 4 Local Similarity nes 13; Conserv 2 TGCTCCATTGATGC 15 Conservative 82.7%; 92.9%; 0; Score 12.4; DB 18; Pred. No. 9.6e+02; Mismatches Indels Length 0;

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Sequence

20 BP; 9 A;

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Search completed: October 24, Job time: 57.7273 secs 2002, 04:06:05 밁

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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length: 50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
/cgn2_6/ptodata/2/ina/5B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6A_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
/cgn2_6/ptodata/2/ina/BCTUS_COMB.seq:*
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US-09-482-084-1
US-09-482-084-3
US-09-143-214-47
PCT-US95-07111A-47
US-09-143-214-2
US-08-957-327-2
US-08-957-327-2
US-08-957-327-2
US-08-957-327-2
US-08-95-07111A-2
US-09-143-214-2
US-09-143-214-2
US-09-1666-41-18
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US-09-066-641-8
US-08-956-641-8
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US-08-256-8056-3
US-08-256-8056-3
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US-08-1756-8068-3
US-08-18-19-608-5
US-09-143-214-3
US-08-95-07111A-3
US-08-95-07111A-3
US-08-95-07111A-3
US-08-95-07111A-3
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US-08-957-327-1
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                                                                                                                                     ; ANTI-SENSE:
US-08-957-327-1
                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/957,327
FILING DATE: 24-OCT-1997
CLASSIFICATION SIAM:
APPLICATION NUMBER: SIAME: Hendricks, Glenna
RECISTRATION NUMBER: 32,535
REFERENCE/DOCKET NUMBER: kasid
TELEPOMMUNICATION INFORMATION:
TELEPAN: (703) 591-4470
TELEP
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                                                Matches
                                                                  Query Match
Best Local S
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MOLECULE TYPE:
HYPOTHETICAL: 1
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Kasid, Usha
APPLICANT: Gokhale, Prafulla
APPLICANT: Dritschilo, Anatoly
APPLICANT: Rahman, Aqulur
TITLE OF INVENTION: Liposomes (
NUMBER OF SEQUENCES: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Hen
STREET: P.O. B
CITY: Fairfax
STATE: VA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
ZIP: 220
    1 GTGCTCCATTGATGC 15
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                                                                     Similarity
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                                                Conservative
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O. Box 2509
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US-08-823-344D-12
US-08-344-639E-12
US-08-467-969A-12
US-08-467-961A-12
US-08-673-312-8
US-08-790-659-4
US-08-790-659-5
US-08-790-659-14
US-08-758-306-1140
US-08-758-306-1140
US-08-758-306-1140
US-08-758-306-1140
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US-08-758-306-1140
US-08-758-306-1140
US-08-758-306-1140
US-08-758-306-1140
US-08-758-306-48
US-09-143-214-48
US-09-143-214-48
US-09-143-214-48
US-08-485-602-80
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RESULT 3
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US-08-957-327-3/c
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US-08-957-327-3
                                                                                                                                                 Sequence 15, Patent No. 6
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                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                    GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: DN
                                      APPLICANT:
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LENGTH: 15 base pairs
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/957,327
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APPLICANT
            APPLICANT
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ADDRESSEE: Hendricks and Assoc.
                                                                 APPLICANT:
                                                                              APPLICANT:
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APPLICANT: Gokhale, Prafulla
APPLICANT: Dritschilo, Anatoly
APPLICANT: Rahman, Aqulur
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                                                                                                                                                                                                                                   15
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CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 32, REFERENCE/DOCKET NUMBER:
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E: VA
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                                Ansell, Steven M.
Cullis, Pieter
Scherrer, Peter
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(703) 59
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                      Scherrer, Peter
Geiser, Timothy
           Zon,
                                                                             Hope, Michael J.
                                                                                        Harasym,
                                                                                                      Klimuk, Sandra K.
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           Gerald
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; MOLECULE TYPE: 0; HYPOTHETICAL: no ; ANTI-SENSE: yes US-09-078-954-15
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US-09-482-084-1
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Best Local S
Matches 15
                                                                                                                                                                                                                                                                    Sequence 1, Application US/U94
Patent No. 6333314
GENERAL INFORMATION:
APPLICANT: Kasid, Usha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: (970) 668-2050
TELEPHONE: (970) 668-2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/856,374 FILING DATE: 14-MAY-1997 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM COMPATIBL OPERATING SYSTEM: DOS 5 SOFTWARE: WORD PERFECT CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 80443-5270
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: Oppedahl & Larson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Marina T. Larson
REGISTRATION NUMBER: 32,038
REFERENCE/DOCKET NUMBER: IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: PO BO
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                                                                                                                                                                                                                                                                                                                                                                                                         1 GTGCTCCATTGATGC 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENGTH:
        ZIP: 22031

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

COMPERATING SYSTEM: PC-DOS/MS-DOS

OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Hendricks and Assoc.
                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                             TITLE OF INVENTION: Liposomes containng Oligonucelotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic acid
                                                                                              STATE: VA
COUNTRY: U
                                                                                                                              CITY: Fairfax
                                                                                                                                              STREET: P.O. Box 2509
                                                                                                                                                                                                                                                                                                                          Application US/09482084
SOFTWARE: PatentIn Release #1.0, Version #1.25
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Pred. No.
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GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
INFORMATION FOR SEQ
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                                                                                                                                                                                                                                 ZIP: 22031

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0,

CURRENT APPLICATION DATA:
        TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 591-4470
TELEFAX: (703) 591-4428
                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Hendricks and Assoc.
STREET: P.O. Box 2509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUTCATION INFORMATION:
TELEPHONE: (703) 591-4470
TELEFAX: (703) 591-4428
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                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Liposomes containing Oligonucelotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: unknown MOLECULE TYPE: DNA (genomic) HYPOTHETICAL: NO
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                                                              NAME: Hendricks, Glenna
REGISTRATION NUMBER: 32,
REFERENCE/DOCKET NUMBER:
                                                                                                                                APPLICATION NUMBER: 08/957,327 FILING DATE: <Unknown>
                                                                                                                                                                                  APPLICATION NUMBER: US/09/482,084 FILING DATE: 13-Jan-2000 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                           CITY: Fairfax
STATE: VA
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TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                            COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hendricks, Glenna REGISTRATION NUMBER: 32, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 08/957,327 FILING DATE: <Unknown>
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Dritschilo, Anatoly
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ID NO:
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Pred. No.
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; TYPE: Nucleic Acid
; STRANDEDNESS: Single
; TOPOLOGY: Linear
; ANTI-SENSE: Yes
US-08-756-806A-47
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US-08-756-806A-47
. Sequence 47, Application US/08756806A
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Best Local
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                                                                                                                                                                        TELEFAX: (609) 810-1454 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/US95/07111
FILING DATE: May 31, 1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb STORAGE
                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: (609) 779-2400
                                                                                                                                                                                                                                                                                FILING DATE: May 31, 1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Monia, Brett P. and Boggs, Russell T. TITLE OF INVENTION: Antisense Oligonucleotide Modulation TITLE OF INVENTION: of raf Gene Expression
                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
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OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.1
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Local Similarity 100.0%;
Local Similarity 100.0%;
hes 15; Conservative 0
Local Similarity hes 15; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/756,806A FILING DATE: No. 5952229ember 26, 1
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MOLECULE TYPE: DNA (genomic)
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                                                                                                                                                                                                                                                                    Jane Massey Licata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
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 Conservative
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                                                                                                           Single
              100.0%;
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                Score 15;
Pred. No.
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US-09-143-214-47
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                                                                                                                                                                 Sequence 47, Application PC/TUS9507111A
GENERAL INFORMATION:
APPLICANT: Monia, Brett P. and Boggs, Russell T.
TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
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ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: PCT/US95/0: FILING DATE: May 31, 1995
PRIOR APPLICATION DATA: 08/250,856
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TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
                                                                                                 NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
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CORRESPONDENCE ADDRESS:
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CLASSIFICATION:
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SOFTWARE: WORDPERFECT 5.1
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STRANDEDNESS: Sing
                                                                   ADDRESSEE:
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15; Conserv
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                          2: Law Offices of Jane Massey Licata 210 Lake Drive East, Suite 201
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No.
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (609) 779-8488 INFORMATION FOR SEQ ID NO:
                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                          ATTORNEY/AGENT INFORMATION:
NAME: Hendricks, Glenna
REGISTRATION NUMBER: 32,
                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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PRIOR APPLICATION NUMBER: 08/250,856
REFERENCE/DOCKET NUMBER: kasid TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                             APPLICANT: Rahman, Aqulur
TITLE OF INVENTION: Liposomes containg Oligonucelotides
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ANTI-SENSE:
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APPLICATION NUMBER: PC'
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                                                                     APPLICATION NUMBER: US/08/957,327
FILING DATE: 24-OCT-1997
CLASSIFICATION: 514
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OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.1
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DEDNESS: Single
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                                                                                                                                                                              Floppy disk
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Pred. No.
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US-09-482-084-2
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US-08-957-327-2
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 Matches
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Best Local Similarity
                                Query Match
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                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 2:
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/ Match 100.0%; (
Local Similarity 100.0%; (
nes 15; Conservative 0;
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STRANDEDNESS: single
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APPLICATION NUMBER: 08/957,327
FILING DATE: CUNknown>
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
                                                                                                      TOPOLOGY: unknown
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
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TELEPHONE: (703) 591-4470
TELEFAX: (703) 591-4428
                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
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TITLE OF INVENTION: Liposomes containg Oligonucelotides
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                                                                             SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                              ANTI-SENSE:
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CITY: Fairfax
                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/482,084
FILING DATE: 13-Jan-2000
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                     LENGTH: 25 base pairs
                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                               NAME: Hendricks, Glenna
REGISTRATION NUMBER: 32,535
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Dritschilo, Anatoly
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Score 15; DB 4;
Pred. No. 4.7;
Mismatches (
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RESULT 11
US-08-250-856A-2
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                                                                                                                                                                                          RESULT 12
US-08-756-806A-2
                                                                                                                          Sequence 2, Application US/08756806A
Patent No. 595229
GENERAL INFORMATION:
APPLICANT: Monia, Brett P. and Boggs, Russell
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                                                                                                                                                                                                                                                                                                                       Matches
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TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 1779-2400
                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY:
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LENGTH: 20
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PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                              CORRESPONDENCE ADDRESS:
                                                                             TITLE OF INVENTION: Antisense Oligonucleotide Modulation TITLE OF INVENTION: of raf Gene Expression NUMBER OF SEQUENCES: 65
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CITY: Cherry Hill
STATE: NJ
                                                                                                                                                                                                                                                                                                                     Local Similarity
nes 13; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
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                                 STREET:
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Marlton
NJ
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                             66 East Main Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E: Law Offices of Jane Massey Licata
210 Lake Drive East, Suite 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
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                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                   Yes
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                                               Law Offices of Jane Massey Licata
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RESULT 13
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                                                                                                                                                                                                                                                                                                                                                                            Sequence 2, Application US/09143214
Patent No. 6090626
GENERAL INFORMATION:
APPLICANT: Monia, Brett P. and Boggs, Russell T.
TITLE OF INVENTION: Antisense Oligonuclectide Modulation
TITLE OF INVENTION: of raf Gene Expression
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                                            APPLICATION NUMBER: US/09/143,214
FILLING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/756,806
FILLING DATE: No. 6090626ember 26,
                                                                                                                                                OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb STORAGE
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REGISTRATION NUMBER: 32,257
REFERENCE_DOCKET NUMBER: ISPH-0200
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 08/250,856 FILING DATE: May 31, 1994 ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: PCT/US95/07111
FILING DATE: May 31, 1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
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               APPLICATION NUMBER: PCT/UFILING DATE: May 31, 1995
                                                                                                                                                              OPERATING SYSTEM:
SOFTWARE: WORDPER
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No. 5952229ember 26, 1
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Query Match
Best Local Similarity
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                                                                                RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                               EARLIER FILING DATE: 1995-08-01
NUMBER OF SEQ ID NOS: 25
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 1
LENGTH: 20
                             Sequence 2, Application PC/TUS9507111A GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Application US/09000136 Patent No. 6096720
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APPLICANT: Sharman, Thomas
APPLICANT: Phillips, Judith A
APPLICANT: Nicklin, Paul L
APPLICANT: Hamilton, Karen O
TITLE OF INVENTION: Liposomal Oligonucleotide Compositions
FILE REFERENCE: 4-20536/A/MA 2112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/000,136
CURRENT FILING DATE: 1998-04-23
EARLIER APPLICATION NUMBER: GB 9515743.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (609) 810-1454 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                          FEATURE: OTHER INFORMATION: phosphorothioate backbones
                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Description of Artificial Sequence:oligonucleotide
                                                                                                                                                                                                                                                                                                                  FEATURE:
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APPLICANT: Monia, Brett P. and Boggs, Russell TITLE OF INVENTION: Antisense Oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
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les 13; Conserv
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STRANDEDNESS: Single
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100.0%; Pred. No.
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100.0%;
 Antisense Oligonucleotide Modulation
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NUMBER OF INVENTION: of raf Gene Expression

NUMBER OF EXQUENCES: 54

CORRESPONDENCE ADDRESS:

ADDRESSEE: LAW Offices of Jane Massey Licata

STREET: 210 Lake Drive East, Suite 201

CITY: CHELTY Hill

STATE: NA

CIP: 08002

COMPUTER READABLE FORM:

MEDIUM TYPE: DISERTE; 3.5 INCH, 1.44 Mb STORAGE

COMPUTER READABLE FORM:

MEDIUM TYPE: DISERTE; 3.5 INCH, 1.44 Mb STORAGE

COMPUTER: IBM PS/2

COMPUTER: 1BM PS/2

COMPUTER: NAME: PC-OOS

SOFTWARE: WORDPERECT 5.1

CHERENT APPLICATION NUMBER: PCT/US95/07111A

FILING DATE: May 31, 1995

CLASSIFICATION NUMBER: 08/250,856

ATTOREY/AGENT INFORMATION:

APPLICATION NUMBER: 08/250,856

ATTOREY/AGENT INFORMATION:

PAUGRAPHICATION NUMBER: 32,257

REFERENCE/DOCKET NUMBER: 32,257

RESIDENATION NUMBER: 32,257

RESIDENATION FOR SEO ID NO: 2:

SEQUENCE CHARACTERISTICS:

LENGTH: 09) 779-2400

TELEPANO ILLIANS: (609) 779-8488

INFORMATION FOR SEO ID NO: 2:

SEQUENCE CHARACTERISTICS:

LENGTH: 0

ANTI-SENSE: Yes

PCT-US95-07111A-2

Query Match

SEATH LOCAL SIMILARITY 100.0%; Pred. No. 63;

Matches 13; CORSETVATIVE 0; Mismatches 0; Indels

Qy 3 GCTCCATTGATGC 15

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Copyright (c) 1993 - 2002 Compugen Ltd.
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AX289556		-	ROI	S	æ	52	36	25	AR069912	AX248818	L	\circ	166953	116467	AR108510	AR061611	AX100920	AX354659	AX354657	AR167449	AR110777	AR110775	I85065	166971	116485	AR108528	AR061629	104701	127232	E49512	AX224890	AX224889	AR105501	AR073933	AR100937	AR100922	ஜ.	2723	513	8	9	80	0739	AR110776
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ALIGNMENTS

RESULT 1
AR110776
LOCUS
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VERSION
KEYWORDS
SOURCE
ORGANISM REFERENCE AUTHORS TITLE JOURNAL FEATURES BASE COUNT ORIGIN Query Match
Best Local Similarity
Matches 25; Conserv source Unknown.
Unclassified.
1 (bases 1 to 25)
1 (bases 1 to 25)
Liposomes containing oligonucleotides
Patent: US 6126965-A 2 03-OCT-2000;
Location/Qualifiers
1. .25 AR110776 Sequence 2 from patent US AR110776 Unknown. Unknown. AR110776.1 GI:12827624 100.0%; 1 ilarity 100.0%; 1 Conservative 0; /organism="unknown"
7 c 6 g Score 25; DB 6; Pred. No. 0.079; Mismatches 0; 25 bp 6126965. DNA 0; Length 25; Indels linear PAT 14-FEB-2001 0; Gaps 0;

Result No.

Score

Query Match Length DB

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Description

SUMMARIES

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Sequence
AR106990
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Monia,B.P. and Boggs,R.T.

Antisense oligonucleotide modulation
Patent: US 5952229-A 47 14-SEP-1999;

Location/Qualifiers
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Sequence
AR073978
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AR073934
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Monia, B.P. and Boggs, R.T.
Antisense oligonucleotide modulation of patent: US 5952229-A 3 14-SEP-1999;
Location/Qualifiers
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  ISIS
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Antisense oligonucleotide regulation of raft gene expression patent: JP 2000152797-A 3 06-JUN-2000;
ISIS PHARMACEUTICALS INC
OS Homo sapiens (human)
N JP 2000152797-A/3
PD 06-JUN-2000
PF 18-JAN-2000 JP 2000008654
PR 31-MAY-1994 US 08/250856
PR MONIA BURETTO P,BOGGUZU RUSSELL T
PC C12N15/09,A61K31/7088,A61K48/00,A61P17/06,A61P35/00,A61P43/00,
PC C12N15/00,A
                                                                                                                              Homo sapiens
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
1 (bases 1 to 20)
P,M.B. and T,B.R.
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Patent: US 6107094-A 5 22-AUG-2000;
Location/Qualifiers
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Crooke, S.T.
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E49513
E49513.1 GI:18628094
JP 2000152797-A/3.
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Patent: US 6107094-A 6 22-AUG-2000;
Location/Qualifiers
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Sequence 6 from patent |
AR106991
AR106991.1 GI:12821521
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19; Conserv
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19; Conserv
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AR073979
AR073979.1
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Monia, B.P. and Boggs, R.T.
Antisense oligonuclectide modulation
Patent: US 5952229-A 48 14-SEP-1999;
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19; Conserv
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Monia,B.P. and Boggs,R.T.
Antisense oligonuclectide modulation
Patent: US 5563255-A 3 08-OCT-1996;
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/db_xref="taxon:9606"
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KEYWORDS
SOURCE
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                   RESULT 11
AR073933
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                   AR073933
Sequence 2
AR073933
AR073933.1
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Nandabalan,K. and Rothberg,J.Marc.
Identification and comparison of protein-protein interactions occur in populations
Patent: US 6083693-A 25 04-JUL-2000;
Location/Qualifiers
                                                                                                                                                                                                                                                                                Unknown.
Unknown.
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Sequence
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17; Conserv
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1 (bases 1 to 40)
Nandabalan,K. and Rothberg,J.Marc.
Identification and comparison of protein-protein
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Patent: US 6083693-A 9 04-JUL-2000;
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AX224889/c
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AR105501
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1 (bases 1 to 20)
Monia,B.P. and Boggs,R.T.
Antisense oligonucleotide modulation
Antisense oligonucleotide Tesp-1999;
Patent: US 5952229-A 2 14-SEP-1999;
Location/Qualifiers
                                    Gray, D.M. and Bollon, A.P.
Libraries of optinum subsequence regions of mrna and genomic for control of gene expression
Patent: WO 0161030-A 43 23-ANG-2001;
Cytoclonal Pharmaceutics, Inc. (US); University of Texas at Cytoclonal Pharmaceutics and Cell Biology (US); Lab. of Experimental Carcinogenesis, National Cancer Institute/NIH (UL)
                                                                                                                                                                                                                Sequence
AX224889
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                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Liposomal oligonucleotide compositions Patent: US 6096720-A 1 01-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Love, W. Guy, Nicklin, P. Leslie, Hamilton, K. Ophelia Phillips, J. Ann.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unknown.
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Antisense oligonucleotide re
Patent: JP 2000152797-A 2 00
ISIS PHARMACEUTICALS INC
OS Homo sapiens (human)
PN JP 2000152797-A/2
PD 06-JUN-2000
PF 18-JAN-2000 JP 20000080
PF 31-MAY-1994 US 08/2:
PI MONIA BURETTO P, BOGGUZI
PC C12N15/00, A61K31/7088, JP C C12N15/00, A
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Gray, D.M. and Bollon, A.P.
Libraries of optimum subsequence regions of mrna and genomic dnifor control of gene expression
Patent: WO 0161030-A 44 23-AUG-2001;
Cytoclonal Pharmaceutics, Inc. (US); University of Texas at Dallas, Dept. of Molecular and Cell Biology (US); Lab. of Experimental Carcinogenesis, National Cancer Institute/NIH (US)
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JP 2000152797-A/2.
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P,M.B. and T,B.R.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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             Homo sapiens (human)
JP 2000152797-A/2
06-JUN-2000
18-JAN-2000 JP 2000008654
31-MAY-1994 US 08/250856
MONIA BURETTO P.BOGGUZU RUSSELL T
C12N15/09,A61K31/7088,A61K48/00,A61P17/06,A61P35/00,A61P43/00,
C12N15/00,A
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/db_xref="taxon:9606"
7 c 4 g
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GenCore version 5.1.3 Copyright (c) 1993 - 2002 Compugen Ltd

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ALIGNMENTS

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RESULT 1 AAT27527 Oligo:nucleotide(s) targetted to nucleic acids encoding human raf capable of inhibiting raf expression, used in treatment of hyper:proliferative disorders 31-MAY-1995; 07-DEC-1995 Antisense; anti-proliferative; tumour; cancer; raf; oncogene; psoriasis; restenosis; 3' untranslated region; ss. WPI; 1996-030518/03. Boggs RT, 31-MAY-1994; WO9532987-A1 Synthetic Mouse/rat c-raf start translation region antisense oligunucleotide 04-JUL-1996 AAT27527; AAT27527 standard; DNA; (ISIS-) ISIS PHARM INC Monia BP; (first entry) 94US-0250856 95WO-US07111 20 BP

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                                                                  The invention provides antisense oligonucleotides targeted to mRNA encoding human raf and capable of inhibiting raf expression. The antisense oligonucleotides are useful for treating and diagnosing abnormal proliferative states and hyperproliferation (e.g. cancer, psoriasis, or blood vessel restensis), and inhibiting raf expression. Sequences Z115511-564 represent antisense oligonucleotides for mouse a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus sp
Rattus
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  Sequence
                                                                                                                                                                                                                                        Disclosure; Column 15;
                                                                                                                                                                                                                                                                                     diagnosing expression
                                                                                                                                                                                                                                                                                                         Oligonucleotides targeted to human raf mRNA useful for treating diagnosing abnormal proliferative states and inhibiting raf
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31-MAY-1994;
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31-MAY-1995;
26-NOV-1996;
                                                                                                                      control. The present sequence is an antisense oligonucleotide. This sequence is targeted to mouse and rat c-raf genes, resulting in c-raf expression inhibition. The present sequence may be useful for treating and raf-associated cell hyperproliferation conditions such as cancer, hyperplasias, pulmonary fibrosis, angiogenesis, psoriasis, hyperplasias, pulmonary fibrosis, angiogenesis, psoriasis, atherosclerosis and smooth muscle cell proliferation in blood vessels e.g. stenosis or restenosis following angioplasty. Also, the present sequence may be useful for treating inflammatory disorders such as tissue
                                                                                                                                                                                                                                                                                               Antisense oligonucleotides targeted to nucleic acid molecule human raf useful for diagnosis, treatment of raf-associated comproliferative conditions such as cancer, psoriasis or blood versions.
                                                                                                                                                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         psoriasis; atherosclerosis; smooth muscle cell prolife restenosis; inflammatory disorder; tissue graft reject endotoxin shock; glomerular nephritis; mouse; rat; ss.
                                                                                    Sequence
                                                                                                                                                                                                                          c-raf is a serine-threonine-specific protein kinase and is thought to play a fundamental role in signal transduction, and cell proliferation
                                                                                                                                                                                                                                                                Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAA73535 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                     (ISIS-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US6090626-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA73535
                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gp.
GTATGTGCTCCATTGATGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000-531424/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTATGTGCTCCATTGATGCA
                                                                                                             rejection,
                                                                                                                                                                                                                                                                                                                                                                            RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              transduction;
                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                     ISIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                             Monia
                                                                                                                                                                                                                                                              Column 14; 31pp;
                                                                                    BP; 4 A; 4 C; 5 G; 7 T; 0 other;
                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a-raf
                                                                                                                                                                                                                                                                                                                                                                                                                            94US-0250856.
95WO-US07111.
96US-0756806.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            kinase; antisense oligonucleotide; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0143214
                                                                                                             endotoxin shock and glomerular nephritis.
                                                                                                                                                                                                                                                                                                                                                                            BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                               80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hyperplasia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antisense oligonucleotide #7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lasia; pulmonary fibrosis; angi
smooth muscle cell proliferati
sorder; tissue graft rejection;
                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                Score 20;
Pred. No.
                                                                                                                                                                                                                                                              English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No.
                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.2;
                                                  2 B
                                                2;
                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   proliferation;
                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Isis
                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>..</u>
                                                                                                                                                                                                                                                                                                     vessel
                                                                                                                                                                                                                                                                                                                 cell
                                                                                                                                                                                                                                                                                                                            encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   stenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #10711).
                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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RESULT 5
AAT86617/C
ID AAT866
XX
AC AAT866
XX
DT 11-JUN
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                                                                                                                Query Match
Best Local 9
                                                                                                         Matches
                                                                                                                                                            AAT27481-T27507 are human c-raf kinase antisense oligonucleotides used for the inhibition of raf expression. The oligonucleotides (ONS) are targeted to either coding region, start or stop signal or 5′ or 3′ untranslated region (UTR) mRNA encoding human c-raf. The ONS may be phosphorothioate linked and may contain modifications at the 2′ position of the sugar moiety. ONS are pref. complementary to either 3′ or 5′ UTRs, phosphorothioate linked and contain 2′-07-alkyl sugar modifications. The ONS are used to inhibit expression of human raf in partic. In conditions associated with hyperproliferation e.g.
                                                                                                                                                                                                                                                                                                   WPI;
                                                                                                                                                                                                                                                                 Oligo:nucleotide(s) targetted to nucleic acids encoding capable of inhibiting raf expression, used in treatment hyper:proliferative disorders
 11-JUN-1998
                  AAT86617;
                                AAT86617 standard; RNA; 20
                                                                                                                                         Sequence
                                                                                                                                                                                                                                                  Disclosure; Page 15; 65pp;
                                                                                                                                                                                                                                                                                                                  Boggs
                                                                                                                                                                                                                                                                                                                                  (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                  31-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                  31-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                   07-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                   WO9532987-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            phosphorothioate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human c-raf kinase translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-JUL-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAT27483;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAT27483 standard; DNA;
                                                                          N
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                                                                                 CCTGTATGTGCTCCATTGA 19
                                                                                                                                                                                                                                                                                                   1996-030518/03.
                                                                         CCTGTATGTGCTCCATTGA 20
                                                                                                                                                                                                                                                                                                                   RT,
                                                                                                         Similarity
19; Conserv
                                                                                                                                                          restenosis,
                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                   Monia BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           anti-proliferative; tumour; cancer;
hioate; 2' sugar modification; psoria
                                                                                                         Conservative
                                                                                                                                         BP; 3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
(first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                  /note=
1..20
/*tag=
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1..20
/*tag=_a
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                                                                                                                                                          and psoriasis.
                                                                                                                76.0%;
100.0%;
                                                                                                                                         6 C; 4 G; 7 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                 "all bases opt.
or 2'-0-propyl
                                                                                                                                                                                                                                                                                                                                                                                                                                                   "opt.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                 ВP
                                                                                                                                                                                                                                                  English.
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                                                                                                         0;
                                                                                                                Score 19;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   phosphorothioate linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   start site antisense oligonucleotide
                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                  contain 2'-0-methyl
sugar modifications"
                                                                                                                DB 17;
6.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           psoriasis;
                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   raf;
                                                                                                                         Length 20;
                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           restenosis;
                                                                                                                                                                                                                                                                           human
of
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                                                                                                                                                                                                                                                                                  raf
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                                                                                                        0
                                                                                                                                                                                        RESULT 6
AAZ11513
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                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                         Matches
26-NOV-1996;
31-MAY-1994;
31-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic. Rattus sp.
                                                                                        Synthetic
                                                                                                                                                05-NOV-1999
                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                          state.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Crooke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rat
                                26-NOV-1996;
                                                14-SEP-1999
                                                                US5952229-A
                                                                                                                                                                 AAZ11513;
                                                                                                                                                                                 AAZ11513
                                                                                                                                                                                                                         19
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AAT86615-T86620 are oligonucleotides designed to be used in a novel method for cleaving RNA. These oligonucleotides act as artificial substrates for mammalian double stranded ribonucleases (dsRNases), in particular, c-raf. Novel ribonucleases generated by this method could be used for treating an organism having a disease characterised by the undesired production of a protein encoded by the mRNA. They can also be used for identifying an mRNA or a protein or for diagnosing an aberrant
                                                                                                                                                                                   Human; raf; diagnosis; abnormal proliferative state; hyperproliferation; cancer; psoriasis; blood vessel restenosis; c-raf kinase; antisense; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Oligo:ribonucleotide analogues -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ribonuclease; analo treatment; disease;
                                                                                                                                                                                                                                                   Human c-raf kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 27; Page 93; 140pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1998-042110/04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9746570-A1
                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ribonuclease substrates, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ISIS-) ISIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CCTGTATGTGCTCCATTGA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         c-raf targeted artificial substrate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGTATGTGCTCCATTGA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           analogue;
sease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96US-0659440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97WO-US09963
96US-0756806
                                                                                                                                                                                                                                                                                                                                                                                DNA;
                                                                                                                                                                                                                                                antisense oligo ISIS # 5075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 C; 6 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               76.0%;
                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               substrate; rat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 19;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of mammalian ribonuclease(s),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 19;
. 6.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 c-raf;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 dsRNase; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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96US-0756806. 94US-0250856. 95WO-US07111.

SSSSS

В Q

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RESULT 7
AAA92026/c
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The present sequence is a sense RNA sequence which, when hybridised with its complement, was used as a substrate for a dsRNase. This type RNase, which specifically cleaves double-stranded RNA, is used in timethods of the invention and can be used to detect the presence of abnormal RNA or abnormal expression of RNA in organisms or cells. The can also be used to modulate enzyme activity in in vitro assays. The
                                                                                                                                                                                                                                                                                                                                                                                                        C-raf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention provides antisense oligonucleotides targeted to mRN encoding human raf and capable of inhibiting raf expression. The antisense oligonucleotides are useful for treating and diagnosing
                                                                                        Example
                                                                                                               comprising segments with specific nucleoside phosphorothicate internucleoside linkages -
                                                                                                                          Novel oligomeric compounds for diagnostic and research purposes, comprising segments with specific nucleoside subunits linked by
                                                                                                                                                                 WPI; 2000-578540/54.
                                                                                                                                                                                                                                        06-JUN-1996;
                                                                                                                                                                                                                                                                 06-JUN-1997;
                                                                                                                                                                                                                                                                                                                  US6107094-A
                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                 abnormal
                                                                                                                                                                                                                                                                                                                                                                              dsRNase
                                                                                                                                                                                                                                                                                                                                                                                                                                12-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA92026;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            abnormal proliferative states and hyperproliferation (e.g. cancer, psoriasis, or blood vessel restenosis), and inhibiting raf expression. Sequences AAZ11511-537 and AAZ11565-573 represent antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Column 9; 29pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oligonucleotides targeted to human raf mRNA useful for treating and diagnosing abnormal proliferative states and inhibiting raf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Boggs
                                                                                                                                                                                                                 (ISIS-) ISIS
                                                                                                                                                                                                                                                                                          22-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA92026 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oligonucleotides for human c-raf kinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ISIS-) ISIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1999-527018/44.
                                                                                                                                                                                                                                                                                                                                                                                                    targeted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                               activation; strand cleavage; sense oligonucleotide; RNA detection; enzyme activity modulation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20 BP; 3 A; 6 C; 4 G; 7 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Monia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                        column
                                                                                                                                                                                                                  PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                       sense
                                                                                                                                                                                                                                        96US-0659440
                                                                                                                                                                                                                                                                 97US-0870608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      76.0%; 5c.
100.0%; Pr
                                                                                        51;
                                                                                                                                                                                                                                                                                                                                                                                                      RNA substrate
                                                                                     44pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 19;
Pred. No.
                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                    for dsRNase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9.8
8.8
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RESULT 8
AAA92027
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Best Local
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                                                                                                                                                                                                                              Sequence
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Matches 19
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31-MAY-1995;
26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; c-raf; protein kinase; antisense oligonucleotide; cancer; signal transduction; hyperplasia; pulmonary fibrosis; angiogenesis; psoriasis; atherosclerosis; smooth muscle cell proliferation; stenosis; restenosis; inflammatory disorder; tissue graft rejection; endotoxin shock; glomerular nephritis; ss.
                                                                                                                                                                                                                                                                                    hyperplasias, pulmonary fibrosis, angiogenesis, psoriasis, atherosclerosis and smooth muscle cell proliferation in blood vessels e.g. stenosis or restenosis following angioplasty. Also, the present sequence may be useful for treating inflammatory disorders such as tissue graft rejection, endotoxin shock and glomerular nephritis.
                                                                                                                                                                                                                                                                                                                                                                                        control. The present sequence is an antisense oligonucleotide. This sequence is targeted to human c-raf gene, resulting in c-raf express inhibition. The present sequence may be useful for treating and raf-associated cell hyperproliferation conditions such as cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 c-raf is a serine-threonine-specific protein kinase and is thought to play a fundamental role in signal transduction, and cell proliferation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human rat useful for utaymosts, tacumum proliferative conditions such as cancer, psoriasis restenosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Antisense oligonucleotides targeted to nucleic acid molecule encoding human raf useful for diagnosis, treatment of raf-associated cell proliferative conditions such as cancer, psoriasis or blood vessel
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    AAT27528 standard;
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95WO-US07111.
96US-0756806.
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AAT27521-T27534 are antisense oligonucleotides against both rat and mouse c-raf kinase. They can be used for the inhibition of raf expression. The oligonucleotides (ONs) are targeted to either coding region, start signal or 5' or 3' untranslated region (UTR) mRNA encoding mouse/rat c-raf. The ONs are phosphorothioate linked. The ON are used to inhibit expression of rat and mouse raf. The ONs can be used in particular accounts of the one of the constant of the constant of the one of the constant of the one of the constant of the constan
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                                                                             Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hyper:proliferative disorders
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-DEC-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mouse/rat c-raf start translation region antisense oligunucleotide
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                                                                                                                                                       cancer; psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGTATGTGCTCCATTG
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                                                                                                                                                                                                                                                                         and
sp.
                                                                                                                                                       diagnosis; abnormal proliferative state; hyperproliferation;
; psoriasis; blood vessel restenosis; c-raf; rat; antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              restenosis,
                                                                                                                                                                                                                                                                         Rat
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restenosis; 3' untranslated region;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP; 2 A; 6 C; 4 G; 8 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                       (first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in conditions associated with hyperproliferation e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and
                                                                                                                                                                                                                                                                     specific
                                                                                                                                                                                                                                                                                                                                                   entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No.
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                                                                                                                                                                                                                                                                         ISIS # 10712
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Matches
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                                                                                                                                                                            31-MAY-1994;
31-MAY-1995;
26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             c-raf;
signal
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      Antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                signal transduction; hyperplasia; pulmonary fibrosis; angiogenesis; psoriasis; atherosclerosis; smooth muscle cell proliferation; steno restenosis; inflammatory disorder; tissue graft rejection;
                                                                                       Boggs
                                                                                                                                  (ISIS-) ISIS
                                                                                                                                                                                                                                                                                                                                                       US6090626-A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                endotoxin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAA73536 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               psoriasis, or blood vessel restenosis), an
Sequences Z115511-564 represent antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 abnormal proliferative states and hyperproliferation (e.g. cancer, psoriasis, or blood vessel restenosis), and inhibiting raf express sequences 2115511-564 represent antisense oligonucleotides for mou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention provides antisense oligonucleotides targeted tencoding human raf and capable of inhibiting raf expression antisense oligonucleotides are useful for treating and diagnostics.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Column 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oligonucleotides targeted to human raf mRNA useful for treating and diagnosing abnormal proliferative states and inhibiting raf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Boggs
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31-MAY-1994;
                                                                                                                                                                                                                                                                  28-AUG-1998;
                                                                                                                                                                                                                                                                                                            18-JUL-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-NOV-1996;
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                                            2000-531424/48.
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                                                                                       RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and rat a-raf kinase antisense oligonucleotide #8 (Isis #10712).
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                                                                                                                                                                          94US-0250856.
95WO-US07111.
96US-0756806.
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94US-0250856.
95WO-US07111.
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    molecule
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RESULT 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and raf-associated cell hyperproliferation conditions such as cancer, hyperplasias, pulmonary fibrosis, angiogenesis, psoriasis, atherosclerosis and smooth muscle cell proliferation in blood vessels e.g. stenosis or restenosis following angioplasty. Also, the present sequence may be useful for treating inflammatory disorders such as tissue graft rejection, endotoxin shock and glomerular nephritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 c-raf is a serine-threonine-specific protein kinase and is thought to play a fundamental role in signal transduction, and cell proliferation control. The present sequence is an antisense ollogonucleotide. This sequence is targeted to mouse and rat c-raf genes, resulting in c-raf expression inhibition. The present sequence may be useful for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human raf useful for diagnosis, treatment of raf-associated proliferative conditions such as cancer, psoriasis or blood restenosis
                                                                                                                                                                                                                                                                                                                                                                                                                                         AAV05430;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV05430 standard; DNA; 40
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18; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Column 14; 31pp; English
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The present sequence was used in the development of a novel method for the detection of one or more protein protein interactions. The method can be used for comparative analysis of protein-protein interactions that occur in two or more different tissue/cell-types, disease states or stages of development. The genes encoding the proteins involved in these interactions, can be identified and isolated rapidly. The method can also be used for concurrent identification of inhibitors of the protein-protein interactions.
    that characterise
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                                                                                                                                                                                                                                                           assembling
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a given population, and
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ing and processing unified databases of sequences
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Identification and comparison of protein-protein interactions - useful for assembling and processing unified databases of sequences
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Best Local :
                                                                                                                                               The present invention relates to methods for detecting and isolating genes encoding proteins that interact with each other, via the reconstitution of a transcription factor and hence reporter gene activation. Proteins are fused to either the yeast DNA-binding domain of a transcriptional activator or to the activation domain of a transcriptional activator. The present sequence is a PCR primer used in the present invention to amplify yeast fusion genes. The present method may be used to identify protein-protein interactions and genes encoding
                                                                                                                                                                                                                                                                                        Detecting protein-protein interactions in protein populations useful for identifying genes encoding the proteins, and inhibitors of the interactions, by detecting transcriptional regulation leading to reporter gene activation
                                                                                                                                                                                                                                                                                                                                                         WPI;
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                                                                                                 Sequence 40 BP; 10 A; 9 C; 16
                                                                                                                         the interacting proteins relevant to a particular disease e.g. cancer.
                                                                                                                                                                                                                                                                  Examples; Column 117; 135pp; English.
                                                                                                                                                                                                                                                                                                                                                                                 Nandabalan K,
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1 CCTGTATGTGCTCC
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     GenCore version 5.1.3 (c) 1993 - 2002 Compugen Ltd.
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US-08-250-856A-3
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PCT-US95-07111A-3
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   -931-473B-31
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Query Match 100.0%; Score 25; DB 3; Len Best Local Similarity 100.0%; Pred. No. 0.00094; Matches 25; Conservative 0; Mismatches 0; I	Sequence 2, Application US/08957327 Sequence 2, Application US/08957327 Patent No. 6126965 GENERAL INFORMATION: APPLICANT: Gokhale, Prafulla APPLICANT: Gokhale, Prafulla APPLICANT: Britschilo, Anatoly APPLICANT: Rahman, Aqulur ITILE OF INVENTION: Liposomes containing Oligonucelotides NUMBER OF SEQUENCES: 3 CORRESPONDENCE ADDRESS: ADDRESSEE: Hendricks and Assoc. STREET: P.O. Box 2509 CITY: Fairfax COUNTRY: US COUNTRY: US SIP: 22031 COMPUTER: PAIFAX COUNTRY: Britfax COMPUTER: TIMP PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATENTIAN RELEASE #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICANTION UNMBER: US/08/957.327 FILLING DATE: 24-CCT-1997 CLASSIFICATION: 514 ATTORNEY/AGENT INFORMATION: NAME: Hendricks, Glenna REGISTRATION UNMBER: US/08/957.327 FILLING DATE: 24-CCT-1997 CLASSIFICATION STATE REFERENCE/DOCKET NUMBER: Kasid TELEPOMUNICATION INFORMATION: TELEPAX: (703) 591-4470 ITELEPAX: (703	ALIGNMENTS	c 28 15.2 60.8 42 1 US-07-714-131C-311 c 29 15.2 60.8 42 1 US-08-409-442A-311 c 31 15.2 60.8 42 2 US-08-469-609A-311 c 31 15.2 60.8 42 3 US-09-143-190-311 c 32 15.6 60.0 15 3 US-09-97-327-3 c 34 15 60.0 15 3 US-08-957-327-3 3 15 60.0 15 3 US-09-98-957-327-3 3 15 60.0 15 4 US-09-078-954-15 36 15 60.0 15 4 US-09-482-084-1 37 15 60.0 15 4 US-09-482-084-1 39 14 2 56.8 41 1 US-07-948-084-3 3 14 2 56.8 41 1 US-07-714-131C-93 3 14 2 56.8 41 1 US-07-714-131C-93 3
3 3; 0094	g Oligonucelotides	TS	31C-311 Sequence 311, App 10-311 Sequence 311, App 42A-311 Sequence 311, App 90-311 Sequence 311, App 90-311 Sequence 11, App 11, App 11, App 11, App 127-3 Sequence 15, App 11, App 127-3 Sequence 15, App 11, App 14, App 14, App 15, App 16, App 17, App 17, App 17, App 17, App 17, App 18, App 18, App 18, App 18, App 19, App 10-29, App 10-29, App 10-29, App 11, App 1

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66 East Main Street

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US-09-482-084-2
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                                                     Sequence 47, Application US/08756806A

Sequence 47, Application US/08756806A

Ratent No. 5952229

RATENT NO. 5952229

GENERAL INFORMATION:
APPLICANT: Monia, Brett P. and Boggs, Russell T.

TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
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Best Local S
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TELEPHONE: (703) 591-4470
TELEPHONE: (703) 591-4428
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 25 base pairs
                        CORRESPONDENCE ADDRESS:
                                           NUMBER OF SEQUENCES:
      ADDRESSEE:
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FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US/09/482,084
FILING DATE: 13-Jan-2000
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 22031
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: unknown MOLECULE TYPE: DNA (genomic) HYPOTHETICAL: NO ANTI-SENSE: YES
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Liposomes containg Oligonucelotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Kasid, Usha
                                                                                                                                                                                                                                                                                                                                                Similarity 100.
25; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
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    Law Offices
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Rahman, Aqulur
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100.0%; Pred. No. 0
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of Jane Massey Licata
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RESULT 4
US-09-143-214-47
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; ANTI-SENSE:
US-08-756-806A-47
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Best Local Similarity
Conserved
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                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb STORAGE
COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
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TITLE OF INVENTION:
TITLE OF INVENTION:
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LENGTH: 20
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FILING DATE: MAY 31, 1994
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
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APPLICATION NUMBER: US/08/756,806A
FILING DATE: No. 5952229ember 26,
                               PRIOR APPLICATION DATA:
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APPLICATION NUMBER:
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                                               CLASSIFICATION:
                                                                  FILING DATE:
                                                                                                                                                                                                      ZIP: 08053
                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                   CITY: Marlton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: Nucleic Acid
STRANDEDNESS: Singl
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OPERATING SYSTEM:
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CITY: Marlton
APPLICATION NUMBER: 08/756,806 FILING DATE: No. 6090626ember 26,
                                                                                 APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                   66 East Main Street
                                                                                                                                                                                                                      USA
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VENTION: Antisense Oligonucleotide Modulation
VENTION: of raf Gene Expression
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                                                                                   US/09/143,214
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Pred. No.
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                                                                                                  TELEFAX: (609) 779-8488 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Law Offices of Jane Massey Licata
STREET: 210 Lake Drive East, Suite 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: IS TELECOMMUNICATION INFORMATION: TELEPHONE: (609) 779-2400
                                                                                                                             REFERENCE/DOCKET NUMBER: IS TELECOMMUNICATION INFORMATION: TELEPHONE: (609) 779-2400
                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM: MEDIUM TYPE: DISKETTI
TOPOLOGY:
ANTI-SENSE:
                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                FILING DATE: May 31, 1995
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Monia, B
TITLE OF INVENTION:
TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PS,
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                FILING DATE: May 31, 1995 CLASSIFICATION:
                                STRANDEDNESS:
                                                                                                                                                                            NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,257
                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Cherry Hill
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                                                                 LENGTH:
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100.0%; Pred. No.
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0.25;
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                                                                                                                                                             RESULT 7
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Patent No. 5563255
GENERAL INFORMATION:
APPLICANT: Monia, Brett P. and Boggs, Russell T.
TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
                                                                                                          Sequence 3, Application US/08756806A
Patent No. 5952229
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Best Local
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                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,257
REFERENCE/DOCKET NUMBER: ISI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
                                               APPLICANT: Monia, Brett P. and Boggs, Russell T. TITLE OF INVENTION: Antisense Oligonucleotide Modulation TITLE OF INVENTION: of raf Gene Expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: DISKETT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 39
CORRESPONDENCE ADDRESS:
ADDRESSEE: Law Offices of Jane Massey Licata
STREET: 210 Lake Drive East, Suite 201
CORRESPONDENCE ADDRESS:
ADDRESSEE: Law Offices of Jane Massey Licata
                                                                                                                                                                                                                                                                                                                                                    ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: (FILING DATE: May 31, CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                TYPE:
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                                                                                                                                                                                                                                                                                      Local Similarity
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100.0%; Pr
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STREET: 66 Ea: CITY: Marlton

66 East Main Street

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RESULT 8
US-09-143-214-3
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Monia, Brett P. and Boggs, Russell T.
TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
                                                                                                   COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/1
FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (609) 810-1454
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/756,806
FILING DATE: No. 6090626ember 26, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/UB//50, CLASSIFICATION S 536
PRIOR APPLICATION DATA: CLASSIFICATION DATA: PCT/US95/07111
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                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH,
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PRIOR APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
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STRANDEDNESS: Sing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Marlton
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REGISTRATION NUMBER: 32,257
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Law Offices of Jane Massey Licata
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5952229ember 26, 1996
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Pred. No.
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US-08-870-608-5/c
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Patent No. 6107094
Query Match
Best Local Similarity
Matches 19; Conserv
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Best Local Similarity
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                                                                                                                                                 TELEPHONE: 215-568-310
TELEFAX: 215-568-3439
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIDIM TYPE: 3.5 inch disk, 1.44 Mb
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: WOrdPerfect 8.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/870,608
                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: IS
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz & No. 6107094ris LLP STREET: One Liberty Place - 46th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Stanley T. Crooke
TITLE OF INVENTION: Oligonucl
TITLE OF INVENTION: RNA
NUMBER OF SEQUENCES: 8
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APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: One Libert CITY: Philadelphia
                                                                                                TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                   NAME: Joseph Lucci
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                    FILING DATE: 06-JUN-1997
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
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                                                                                                                                   LENGTH:
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DEDNESS: Single
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                                                                                                                                     20 bases
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 Conservative
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                                                                                     linear
                                                                                                                                                                                                      215-568-3100
               76.0%; Score 19; DB 3; 100.0%; Pred. No. 0.79;
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Mismatches
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0.79;
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                                 Length 20;
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Gaps
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Patent No. 6107094
                                                                                                                                                                                                                              Sequence 3, Application PC/TUS9507111A GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: JOSEPH LUCCI
REGISTRATION NUMBER: 33,307
REFERENCE/DOCKET NUMBER: ISIS
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcook Washburn Kurtz Mackiewicz & No. 6107094ris LLP
STREET: One Liberty Place - 46th Floor
      COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: WOrdPerfect 8.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/870,608
FILING DATE: 06-UN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch disk, 1.44 Mb
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                               STREET: ZIV L...
CITY: Cherry Hill
STATE: NJ
                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Law Offices of Jane Massey Licata
STREET: 210 Lake Drive East, Suite 201
                                                                                                                                                           APPLICANT: Monia, Brett P. and Boggs, Russell T.
TITLE OF INVENTION: Antisense Oligonuclectide Modulation
TITLE OF INVENTION: of raf Gene Expression
NUMBER OF SEQUENCES: 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single TOPOLOGY: linear
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COMPUTER:
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IBM PS/2
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63.2%;
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Pred. No.
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RESULT 12
US-08-756-806A-48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION: APPLICANT: Monia,
                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/07111
EILING DATE: May 31, 1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/250,856
EILING DATE: May 31, 1994
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licate
NAME: Jane Massey Licate
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INFORMATION FOR SEQ ID NO: .
                                                                                                                                                                                                SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
CAPPLICATION UMBER: US/08/756,806A
FILING DATE: NO. 5952229ember 26, 1996
CLASSIFICATION: 536
             NAME: Jane Massey Licata
REGISTATION NUMBER: 32,257
REFERENCE/DOCKET NUMBER: IS
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                 ZIP: 08053
COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Monia, Brett P. and Boggs, Russell T. TITLE OF INVENTION: Antisense Oligonucleotide Modulation TITLE OF INVENTION: of raf Gene Expression
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ANTI-SENSE:
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OPERATING SYSTEM: 1
SOFTWARE: WORDPERFI
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STRANDEDNESS: Single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: M
CLASSIFICATION:
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TELEPHONE:
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WORDPERFECT 5.1
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(609) 779-2400
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                                 ISPH-0200
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INFORMATION FOR SEQ ID NO:

(609)

810-1454

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; TOPOLOGY: Linear; ANTI-SENSE: Yes
US-08-756-806A-48
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US-09-143-214-48
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                                                    Matches
                                                                  Query Match
Best Local
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Monia,
                                                                                                                                                                                                     TELEFAX: (609) 810-1454 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                    COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                       ANTI-SENSE:
                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                    FILING DATE: May 31, 1994
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,2
                                                                                                                                                                                                                                                                                                                    FILING DATE: May 31, 1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/250,856
                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/756,806
FILLING DATE: NO. 6090826ember 26,
APPLICATION NUMBER: PCT/US95/07111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Antisense Oligonucleot.
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                                                                  Local Similarity
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                                                                                                                                   TOPOLOGY:
                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                               TYPE:
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LENGTH:
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                                                                                                                                    Linear
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                                                                                                                                                                                                                                (609)
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Ratisense Oligonucleotide Modulation
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100.0%; Pr
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                                                                 72.0%;
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Pred. No.
                                                                  Score 18;
Pred. No
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                                                                  DB 3;
2.4;
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2.4
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                                                                              Length 20;
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RESULT 15
US-08-874-825-9/c
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PCT-US95-07111A-48
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GENERAL INFORMATION:
APPLICANT: Monia, Brett P. and Boggs, Russell T.
TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
NUMBER OF SEQUENCES: 54
CORRESPONDENCE ADDRESS:
ADDRESSE: Law Offices of Jane Massey Licata
STREET: 210 Lake Drive East, Suite 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 9, Application US/08874825 Patent No. 6057101 GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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APPLICATION NUMBER: 08/250
APPLICATION NAME: May 31, 1995
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,25
                                                                        APPLICANT: 1000;
APPLICANT: Knight, James
APPL
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APPLICANT:
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nes 18; Conserv
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Query Match 100.0%; Score 15; DB 6; Best Local Similarity 100.0%; Pred. No. 4.2e+02; Matches 15; Conservative 0; Mismatches 0;
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1 (bases 1 to 15)

Kasid, U., Gokhale, P., Dritschilo, A. and Rahman, A. Liposomes containing oligonucleotides

Liposomes containing oligonucleotides

Patent: US 6126965-A 1 03-OCT-2000;

Location/Qualifiers
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1 (bases 1 to 15)
Semple, S.C.; Klimuk, S.K., Harasym, T., Hope, M.J.,
Cullis, P., Scherrer, P. and Debeyer, D.
Charged therapeutic agents encapsulated in lipid containing four lipid components
containing four lipid components
Patent: US 6287591-A 15 11-SEP-2001;
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Sequence
AR073933
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1 (bases 1 to 25)

1 (bases 1 to 25)

Kasid, U., Gokhale, P., Dritschilo, A. an Liposomes containing oligonucleotides Patent: US 6126965-A 2 03-OCT-2000;

Patent: US 6126965-A 2 03-OCT-2000;
                                                                  1 (bases 1 to 20)

Monia, B.P. and Boggs, R.T.

Antisense oligonucleotide modulation
Patent: US 5952229-A 2 14-SEP-1999;
Location/Qualifiers
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15; Conserv
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Monia,B.P. and Boggs,R.T.
Antisense oligonucleotide modulation
Patent: US 5952229-A 47 14-SEP-1999;
Location/Qualifiers
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AR110776
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llarity 100.0%;
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Pred. No.
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Pred. No. 3.9e+02;
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5952229.
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6126965.
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AR105501/c
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AUTHORS
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E49512/c
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                                                                                  Antisense oligonucleotide regulation of raft gene expression
AL Patent: JP 2000152797-A 2 06-JUN-2000;
ISIS PHARMACEUTICALS INC
OS HOMO Sapiens (human)
PN JP 2000152797-A/2
PD 06-JUN-2000
PD 16-JUN-2000
PF 18-JAN-2000 JP 200008654
PF 31-MAY-1994 US 08/250856
PR 31-MAY-1994 US 08/250856
PC C12N15/09,A61K31/7088,A61K48/00,A61P17/06,A61P35/00,A61P43/00,
PC C12N15/09,A
CC
FH Key Location/Qualifiers
FT source 1.20
/organism-'Homo sapiens (human)'.
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Sequence 1 1
AR105501
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E49512.1 GI:18628093
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
1 (bases 1 to 20)
                                                                                                                                                                                                                                                                                             Homo sapiens
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JP 2000152797-A/2.
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Love, W.Guy, Nicklin, P.Leslie,
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                               /organism="Homo sapiens"
/db_xref="taxon:9606"
5 c 4 g
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AR070338.1
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127232
127232.1
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   GI:7221226
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92.9%;
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Unclassified.
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1 (bases 1 to 20)
5 Monia, B. P. and Boggs, R. T.
6 Antisense oligonucleotide modulation of L. Patent: US 5563255-A 2 08-OCT-1996; L. Location/Qualifiers
70
                                                                                                                                                                                                                     1 (bases 1 to 20)
Gray, J.W., Collins.C., Pinkel, D., Kal
Amplifications of chromosomal region
indicator in breast cancer
Patent: US 5801021-A 7 01-SEP-1998;
Location/Qualifiers
                                                                                                                                                                                   /organism="unknown"
2 c 5 g
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5 c 4 g
from patent US 5892010.
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Pred. No. 1
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0: Mismatches 0;
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Barany, F., Zirvi, M., Gerry, N.P., Favis, R. and Kliman, R. Method of designing addressable array for detection of sequence differences using ligase detection reaction Patent: WO 0179548-A 1318 25-OCT-2001; CORNELL RESEARCH FOUNDATION, INC. (US)
                                                                                                  synthetic construct. synthetic construct
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Gray, J., Collins, C., Hwang, S., Godfrey, T., K.
Genes from the 20013 amplicon and their uses
Patent: US 5892010-A 15 06-APR-1999;
                                                                                       artificial sequence.
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1 (bases 1 to 27)

Stinchcomb,D.T. and McSwiggen,J.A.

Interleukin-2 receptor gamma-chain ri
Patent: US 5807743-A 172 15-SEP-1998;

Location/Qualifiers
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Monia,B.P. and Boggs,R.T.
Antisense oligonucleotide modulation of Patent: US 5952229-A 3 14-SEP-1999;
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		J K	200	80.0	1 2) k	C
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		ц	20	0	12	21	a
		ш	27	82.7	12.4	20	a
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	0 AATO9/10	ა 🗕	2 6	00.7	1 1 0) <u> </u>	3 (
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ALIGNMENTS

RESULT 1

DNA;

15 ВP

ANV54043/C

ID

XX

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AAV54043 standard; D

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AC

AAV54043;

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DT

O2-DEC-1998 (first

XX

DT

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Human antisense c-ra

XX

KW

Human; antisense; cance

KW

Iiposome carrier sys

XX

Homo sapiens.

XX

FH

Key

FH

Modified_base 1

FT

modified_base 1

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FT

MO9843095-A1.

XX

PR

MO9843095-A1.

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PR

O1-OCT-1998.

XX

PR

19-MAR-1997; 97US
PR

24-OCT-1997; 97US
RA

24-OCT-1997; 97US-Human; antisense; c-raf-1; oligodeoxyribonucleotide; ODN/oligo; tumour tissue; cancer; radiation therapy; radiosensitise; antisense; liposome carrier system; Human antisense c-raf-1 oligodeoxyribonucleotide (first entry) 97US-0957327 97US-0041192 98WO-US05303 /note= 15 Location/Qualifiers /note= /*tag= /*tag= b
"C-terminal base is phosphothioated" "N-terminal base is phosphothioated"

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RESULT 2
AAV99435/c
ID AAV994
XX AAV994
XX AAV1se
AX Antise
XX Bynthe
OS Synthe
OS Homo s
XX Homo s
XX Homo s
YX Hom
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                                                                                                                                           Ansell SM,
Klimuk SK,
Composition containing lipid-encapsulated therapeutic agent - useful, e.g. for delivering antisense molecules or ribozymes or treating diseases associated with aberrant gene expression {\sf treating}
                                                                                                                                                                                                                                                              14-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antisense oligonucleotide; human c-raf-1 protein kinase gene; phosphorothioate; phosphodiester; lipid-encapsulation; tumour aberrant gene expression; treatment; inflammation; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        therapy. The products can be used in a method of radiosensitising tumour tissue by addition of an antisense oligonucleotide of maximum 40 bases containing ODN/Oligo. The liposome carrier system directly targets tumour tissue and has the potential for use in the radiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This is the nucleotide sequence of the human antisense c-raf-1 oligodeoxyribonucleotide (ODN/Oligo), used in the method of the invention to directly target tumour tissue, and in cancer radiation therapy. The products can be used in a method of radiosensitising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New cationic liposome composition containing raf oligodeoxynucleotide - can be used to directly target tumour tissue and is useful in the radiation therapy of cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GEOU
                                                                                                                                                                                                              (INEX-) INEX PHARM CORP
                                                                                                                                                                                                                                                                                                          14-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                       19-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                     WO9851278-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antisense oligonucleotide directed against c-raf-1 protein kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAV99435;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAV99435 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     therapy of cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dritschilo
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                                                                                             1999-045179/04
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4; Page 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              l Similarity
15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15
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                                                                                                                                           Cullis P,
Scherrer F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₿P;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                                                                                                                                                            97US-0856374
                                                                                                                                                                                                                                                                                                          98WO-CA00485
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                                                                                                                                           Debeyer D,
, Semple SC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                              "phosphorothioate
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kasid
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ψ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       other;
                                                                                                                                                                                                                                                                                                                                                                                                                                              or phosphodiester bonds'
                                                                                                                                                                   T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19;
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                                                                                                                                                                 Hope MJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
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RESULT 3
AAZ98661/c
ID AAZ986
XX AAZ986
XX AAT1se
AC HUMAN
DT O5-JUN
XX ATTISE
KW LUMOUR
KW INFECT
XX HOMO S
FH Key
FT M1Sc_f
FT WY
YY
FT AAZ971
XX CA2271
X
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          intermediate mixture of lipid-encapsulated particles, and changing the pH of the mixture to neutralise at least some of the external surface charges on the particles. One lipid has a (de)protonatable group with Ka such that the lipid is charged at a first pH but neutral at a second pH (particularly near physiological pH) and the buffer maintains this lipid in the charged form (i.e. cationic when the therapeutic agent is anionic in the buffer, or vice versa). The second lipid prevents particle aggregation during formation of the lipid-therapeutic agent particles. The composition is used to introduce therapeutic agents into cells, in vivo or in vitro, particularly to treat or prevent diseases associated with aberrant gene expression in mammals, specifically tumours, infortion of fortions.
                       (CULL/)
(MOKW/)
(SCHE/)
(SEMP/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence represents an antisense oligonucleotide directed against the human c-raf-1 protein kinase gene. The oligonucleotide can have either phosphorothicate or phosphodiester bonds. The oligonucleotide is lipid-encapsulated using the method of the invention. A composition comprising lipid-encapsulated particles of a therapeutic agent,
                                                                                                                        (HARA/)
(HOPE/)
(ANSE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e.g. antisense oligonucleotides, is prepared by mixing at least 2 liwith buffered aqueous solution of charged therapeutic agent to form
                                                                                                                                                                                                                                                    14-MAY-1998;
                                                                                                                                                                                                                                                                                                  13-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                   14-NOV-1999.
                                                                                                                                                                                                                                                                                                                                                                                                    CA2271582-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antisense oligonucleotide; phosphorothioate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human c-raf-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ98661;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAZ98661 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   infectious disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           inflammation or infection.
                                                                                                                                                                                                (KLIM/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15 GCATCAATGGAGCAC
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les 15; Conserv
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                       HOPE M J.
ANSELL S M.
CULLIS P R.
MOK W W K.
SCHERRER P.
SEMPLE S C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene
                                                                                                                                                                                                   KLIMUK
                                                                                                                                                                            HARASYM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           therapy; aberrant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PK therapeutic antisense oligonucleotide
                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                    98US-0078955
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
1...15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /*tag=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   kinase C alpha; c-raf-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene expression;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inflammatory disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein kinase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence ATG-AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 lipids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
AAD22797/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This sequence represents an antisense oligonucleotide sequence which has human c-raf-l protein kinase as its target gene. The oligonucleotide is used in a method for delivering lipid encapsulated therapeutic agents (i.e antisense oligonucleotides) to mammals. The lipid capsule comprises steric barrier lipids that prevent particle aggregation during lipid nucleic acid formation. The method may be used for the delivery of therapeutic agents to mammalian cells. It is especially suitable for
                                                                                                                                                                                                                                                                                                 distearoylphosphatidylcholine; palmitoyloleoyl phophatidylcholine; DSPC; POPC; 1,2-dioleoyl-sn-3-phosphoethanolamine; cholesterol; SM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   therapeutic agents to mammalian cells. It is especially suitable for delivering nucleic acid molecules, and in particular antisense molecules which may be administered to down regulate the expression of aberrant
WPI; 2002-024658/03
                     Semple SC,
Scherrer P,
                                                                                 14-MAY-1997;
                                                                                                         14-MAY-1998;
                                                                                                                                11-SEP-2001
                                                                                                                                                       US6287591-В1
                                                                                                                                                                                                                  modified_base
                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                         Treatment; tumour; lipid-therapeutic agent
                                                                                                                                                                                                                                                                                                                                                 Human c-raf-1 protein kinase antisense oligonucleotide, ATG-AS
                                                                                                                                                                                                                                                                                                                                                                            26-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                   AAD22797;
                                                                                                                                                                                                                                                                                                                                                                                                                          AAD22797 standard; DNA; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   genes. The aberrant gene may be ICAM-1, c-myc, c-myb, ras, raf, erb-B-2, PKC-alpha, IGF-1R, EGFR, VEGF and/or VEG-R-1. The method may be used for the treatment of tumours, inflammatory diseases and/or infectious
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 5; Page 57; 99pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      capsules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scherrer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Klimuk SK,
                                                           (INEX-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GCATCAATGGAGCAC 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCATCAATGGAGCAC
                                                                                                                                                                                                                                                                                       inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
15; Conser
                                                         INEX PHARM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for delivering antisense oligonucleotides comprising steric barrier lipids -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Harasym
Semple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
llarity 100.0%;
Conservative (
                     Klimuk SK,
Debeyer D;
                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                 97US-0856374
                                                                                                        98US-0078954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 A;
                                                                                                                                                                                                    /*tag= a
                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                      c-raf-1 protein kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \vdash
                                                                                                                                                                                          _base= OTHER
                                                                                                                                                                               "Optionally phosphorothicate backbone"
                                  Harasym
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4.
                                                                                                                                                                                                                                                                                                                                                                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>ი</u>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 15;
Pred. No.
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                                  Ť,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ansell SM,
                                  Hope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                  Ž
                                                                                                                                                                                                                                                                                       gene;
                                                                                                                                                                                                                                                                                                                         particle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cullis
                                  Ansell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ξ
                                  , MS
                                                                                                                                                                                                                                                                                                                         sphingomyelin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cells using lipid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mok WWK
                                  Cullis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                    MS
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cc encapsulated in the lipid portion. The lipid portion comprises a first clipid component selected from lipids containing a protonatable or component selected from lipids containing a protonatable or cdeprotonatable (preferably protonatable) group that has a pKa such cthat the lipid is in charged form at a first pH and in neutral form at camponent is further selected such that the charged form at component is related such that the charged form is cationic component is selected from lipids that prevent particle aggregation component is selected from lipids that prevent particle aggregation cduring lipid-therapeutic agent particles formation and which exchange cout the lipid particle at a rate greater than PEG-cer20; third lipid component is a neutral lipid selected from distearcylphosphatidylcholine (pSPC), palmitoylolecyl phophatidylcholine (pSPC), 1,2-diolecyl-sn-3-cc (DSPC), palmitoylolecyl phophatidylcholine (pSPC), 1,2-diolecyl-sn-3-cc (DSPC), palmitohis cholesterol. Compositions of the invention are used component which is cholesterol. Compositions of the invention are used component which is cholesterol. Compositions of the invention are used conformation growth factor 1-receptor), vas. raf, erb-B-2, PKC-alpha (phosphokinase C-alpha), IGF-IR (creeptor), vas. raf, erb-B-2, PKC-alpha (phosphokinase C-alpha), IGF-IR (creeptor), very and very receptor), bcl-2, EGFR (epidermal growth factor creeptor), very and very resent sequence is an antisense oligonucleotide confectious disease. The present sequence is an antisense oligonucleotide cargetted to human c-raf-1 protein kinase gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tumours. The composition comprises lipid-therapeutic agent particles comprising a lipid portion and a charged therapeutic agent which is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Composition useful for treatment of e.g. tumors comprises comprising lipid portion and a charged therapeutic agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a composition useful for treatment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               particles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              e.g
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밁 Š Query Match Best Local Matches 15 GCATCAATGGAGCAC 1 1 GCATCAATGGAGCAC 15 Similarity Conservative 100.0%; 0; Score 15; Pred. No. Mismatches 0; Indels 0; Gaps 0;

Sequence

15

BP;

2 A;

4 C;

4 G;

5 T;

0 other;

DB 24;

Length 15;

AAT27527/c ID AAT27527 standard; Antisense; psoriasis; Mouse/rat 04-JUL-1996 AAT27527; c-raf start translation region antisense oligunucleotide. restenosis; anti-proliferative; tumour; (first entry) DNA; Ψ 20 untranslated ВP cancer; region;

Synthetic

31-MAY-1994; 31-MAY-1995; 07-DEC-1995 WO9532987-A1 94US-0250856 95WO-US07111

WPI; 1996-030518/03 RT, Monia BP

(ISIS-) ISIS PHARM INC

Oligo:nucleotide(s) targetted to nucleic acids encoding human raf

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RESULT 6
AAZ11557/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                       26-NOV-1996;
31-MAY-1994;
31-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             expression. The oligonucleotides (ONs) are targeted to either coding region, start signal or 5' or 3' untranslated region (UTR) mRNA encoding mouse/rat c-raf. The ONs are phosphorothicate linked. The ON are used to inhibit expression of rat and mouse raf. The ONs can be used in partic. in conditions associated with hyperproliferation e.g.
abnormal proliferative states and hyperproliferation (e.g. cancer, psoriasis, or blood vessel restenosis), and inhibiting raf express Sequences Z115511-564 represent antisense oligonucleotides for mou
                                                 The invention provides antisense oligonucleotides targeted to mRN encoding human raf and capable of inhibiting raf expression. The antisense oligonucleotides are useful for treating and diagnosing
                                                                                                                                Disclosure; Column 15;
                                                                                                                                                                     expression
                                                                                                                                                                                    Oligonucleotides targeted to human raf mRNA useful for treating diagnosing abnormal proliferative states and inhibiting raf
                                                                                                                                                                                                                                            WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAT27521-T27534 are antisense oligonucleotides against both rat and mouse c-raf kinase. They can be used for the inhibition of raf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    capable of inhibiting raf exp
hyper:proliferative disorders
                                                                                                                                                                                                                                                                                Boggs
                                                                                                                                                                                                                                                                                                                     (ISIS-) ISIS
                                                                                                                                                                                                                                                                                                                                                                                                                                26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US5952229-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ11557;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GCATCAATGGAGCAC
                                                                                                                                                                                                                                            1999-527018/44.
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                                                                                                                                                                                                                                                                                RI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diagnosis; abnormal proliferative state; hyperproliferation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                restenosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rat c-raf
                                                                                                                                                                                                                                                                                Monia BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP; 4 A; 4 C; 5 G; 7 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                   PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                                                                                                                       96US-0756806.
94US-0250856.
95WO-US07111.
                                                                                                                                                                                                                                                                                                                                                                                                                                96US-0756806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 blood vessel restenosis; c-raf;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     specific antisense oligo ISIS # 10711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       raf expression,
                                                                                                                            29pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                              English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       in treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rat; antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20;
               expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                            mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The ONs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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GCATCAATGGAGCAC GCATCAATGGAGCAC

Query Match Best Local Matches

l Similarity

Conservative

0;

Mismatches

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Indels

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Gaps

0;

100.0%;

Score Pred.

No.

DΒ 21;

Length 20;

Sequence

20

BP; 4 A;

4 C; 5 G; 7 T; 0 other;

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AAA73535/c
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Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-MAY-1994;
31-MAY-1995;
26-NOV-1996;
e.g. stenosis or restenosis following angioplasty. Also, the present sequence may be useful for treating inflammatory disorders such as t graft rejection, endotoxin shock and glomerular nephritis.
                                                           and raf-associated cell hyperproliferation conditions such as hyperplasias, pulmonary fibrosis, angiogenesis, psoriasis, atherosclerosis and smooth muscle cell proliferation in blood
                                                                                                                      control. The present sequence is an antisense oligonucleotide. This sequence is targeted to mouse and rat c-raf genes, resulting in c-raf expression inhibition. The present sequence may be useful for treating
                                                                                                                                                                                 c-raf is a serine-threonine-specific protein kinase and is thought to play a fundamental role in signal transduction, and cell proliferation
                                                                                                                                                                                                                                                                                                                                                                                         WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                signal transduction; hyperplasia; pulmonary fibrosis; angiogenesis; psoriasis; atherosclerosis; smooth muscle cell proliferation; steno restenosis; inflammatory disorder; tissue graft rejection;
                                                                                                                                                                                                                                                                                        proliferative conditions restenosis -
                                                                                                                                                                                                                                                                                                         Antisense oligonucleotides targeted to nucleic acid molecule encoding human raf useful for diagnosis, treatment of raf-associated cell proliferative conditions such as cancer, psoriasis or blood vessel
                                                                                                                                                                                                                                              Disclosure; Column 14; 31pp;
                                                                                                                                                                                                                                                                                                                                                                                                                               Boggs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-JUL-2000
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15; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rat a-raf kinase antisense oligonucleotide #7 (Isis
                                                                                                                                                                                                                                                                                                                                                                                                                               Monia
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nilarity 100.0%;
Conservative 0
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95WO-US07111.
96US-0756806.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0143214
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                No.
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                                                                 vessels
                                                                                                       cancer,
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Query Match

Length 17

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A method has been developed for the identification of a nucleic acid CC capable of modulating a process in a biological system. The method CC capable of modulating a process in a biological system. The method CC comprises: (a) introducing into the system a random library of nucleic CC carid catalysts (NAC) having a substrate binding domain (SBD), comprising CC arandom sequence, and a catalytic domain (CD); and (b) identifying NAC CC in systems where modulation has occurred and/or determining the sequence CC of at least part of the SBDs in such systems. Nucleic acid moleculess CC with endonuclease activity and catalytic activity, from the present CC invention, are used to modulate gene expression in plant and mammalian CC cells and to cleave target nucleic acid, particularly for treating CC systemic diseases caused by specific RNA, e.g. cancer, inflammation, CC psoriasis, non-hepatic ascites and infection. They may also be used to detect genetic drift and mutations in diseased cells and to determine CC craf RNA. Specifically NACs with RNA-cleaving activity that modulate C expression of the Raf gene, are used to treat cancer, restenosis, CC psoriasis or rheumatoid arthritis, or generally any condition associated with the level of c-raf. Introduction of sugar/phosphate modifications CC increases stability against nuclease and activity. AAV99922 to AAV93877
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02-OCT-1997;
02-OCT-1997;
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09-MAY-1997;
09-JUN-1997;
03-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Karpeisky
Parry T,
                                                                                                                                                                                                                                                                                                                                                                                                       Claim 177; Page 146; 259pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Identifying new catalytic nucleic acid that modulates selected processes - especially ribozymes that cleave Raf RNA for treating cancer, restenosis, and also new ribozymes and modified nucleoside triphosphates used as antiviral agents and synthons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-009494/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Beaudry
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; c-raf; A-raf; B-raf; hammerhead ribozyme; hairpin ribozyme; target; substrate; catalyst; modulation; expression; Raf gene; delivery; screening; identification; synthesis; deprotection; purification; cancer; inflammation; psoriasis; non-hepatic ascites; infection; genetic drift; restenosis; rheumatoid arthritis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human C-raf
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                                  modulating the
                                                      increases stability represent NACs that
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, Kisich K, Matulic-Adamic J, Mc
eynolds M, Sweedler D, Thompson J
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97US-0049002.
97US-0051718.
97US-0056808.
97US-0061321.
97US-0061324.
97US-0064866.
                                  expression of a Raf
                                                 that can be used
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                                    gene.
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                                                                                                                                                                                                                                AAT27481-T27507 are human c-raf kinase antisense oligonucleotides use for the inhibition of raf expression. The oligonucleotides (ONs) are targeted to either coding region, start or stop signal or 5' or 3' untranslated region (UTR) mRNA encoding human c-raf. The ONs may be phosphorothicate linked and may contain modifications at the 2' position of the sugar modety. ONs are pref. complementary to either 3' or 5' UTRs, phosphorothicate linked and contain 2'-O-alkyl sugar modifications. The ONs are used to inhibit expression of human raf in partic. in conditions associated with hyperproliferation e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Oligo:nucleotide(s) targetted to nucleic acids encoding capable of inhibiting raf expression, used in treatment
                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1996-030518/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-MAY-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hyper:proliferative disorders
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                    GCATCAATGGAGC
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                                                                                   l Similarity
13; Conserv
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                                                                                                                                                                                                                restenosis,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 15; 65pp; English.
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hioate; 2' sugar mod:
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                                                                                                          100.0%;
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or 2'-0-propyl sugar modifications"
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ification; psoriasis;
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4.2e+02;
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                                                                                                          4.3e+02;
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                                                                                                                            Length 20
                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oncogene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human
of
                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              raf
                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                 used
                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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RESULT 11
AAT59716/c
ID AAT597
XX
AC AAT597
XX
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AAT62145/c
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                                                                                                                                   Matches
                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                       A pharmaceutical composition has been developed comprising an oligonuclectide, targeted to human raf encoding mRNA, and an anionic polysaccharide. The present sequence represents a specifically claimed oligonucleotide for use in the composition. The composition can be used to treat mammalian cancer, especially human lung, stomach, renal, breast, laryngeal, pancreatic or colorectal cancer, or malignant melanoma. The anionic polysaccharide increases tumour uptake of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cancer; anionic polysaccharide; human; renal cancer; breast cancer; laryngeal colorectal cancer; malignant melanoma;
            AAT59716;
                                 AAT59716 standard;
                                                                                                                                                                                                                                                                                                               Claim 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human c-raf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT62145 standard; DNA;
                                                                                                                                                                                                             oligonucleotide,
                                                                                                                                                                                                                                                                                                                                                         Composition for cancer treatment
                                                                                                                                                                                                                                                                                                                                                                                WPI; 1997-202610/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAT62145;
                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                     human c-raf
                                                                                                                                                                                                                                                                                                                                                 polysaccharide,
                                                                                                                                                                                                                                                                                                                                                                                                                         (NOVS ) NOVARTIS AG. (CIBA ) CIBA GEIGY AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9710829-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key
                                                                                         13
                                                                                                          1 GCATCAATGGAGC 13
                                                                                        GCATCAATGGAGC
                                                                                                                                    l Similarity
13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                    PL,
                                                                                                                                                                                                    mRNA.
                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                              Page 14; 21pp; English.
                                                                                                                                                                              B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and dextran sulphate mRNA targetting oligonucleotide ON1
                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                    Steward A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                         95GB-0019109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96WO-GB02245
                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                     dextran sulphate
                                                                                                                                                                                                                                                                                                                                              cancer treatment - comprising anionic
and oligo:nucleotide targeted to mRNA encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers 1..20
                                                                                                                                                                                                             particularly an oligonucleotide targeted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note=
                                                                                                                                                                              Ą,
                                                                                          -
                                  DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                             86.7%;
                                                                                                                                                                              S
                                                                                                                                                                             C; 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Phosphorothicate backbone; optionally being uniformly substituted at the 2'-position of sugar moiety by a methoxy group"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ω
                                  20
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                                  ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВP
                                                                                                                                   0;
                                                                                                                                                                             G; 6 T; 0 other;
                                                                                                                                              Score 13;
Pred. No
                                                                                                                                    Mismatches
                                                                                                                                              .
80
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               lung cancer; stomach cancer;
cancer; pancreatic cancer;
tumour; ss.
                                                                                                                                                         DB 18;
                                                                                                                                   4.3e+02;
hes 0;
                                                                                                                                                      Length 20;
                                                                                                                                   Indels
                                                                                                                                                                                                               to human raf
                                                                                                                                   0;
                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the
                                                                                                                                   0
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KK XE X D X A X I

cancer; psoriasis; blood

Human; raf;

diagnosis;

abnormal wod vessel

proliferative state; hyperproliferation; restenosis; c-raf kinase; antisense; ss.

Ъ Q

0;

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RESULT 12
AAZ11512/c
                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      stabilised liposomes are claimed. The compsns. can be used for inhibiting the expression of human raf. They can be used for the treatment of mammalian cancer, partic, human cancer e.g. lung, stomach, renal, breast, laryngeal, pancreatic, colorectal cancer and malignant melanoma. In particular the compsns. can inhibit abnormal raf expression and retain anti-hyperproliferative activity after prolonged circulation in the bloodstream. They facilitate the reduction of accumulation of ONs in non-target organs and a reduction of acute and chronic side effects
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Inhibiting human raf expression, partic. for treating causing an oligonucleotide targeted to mRNA encoding human entrapped in sterically stabilised liposome(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                           during prolonged treatment. ON1-10 are oligodeoxynucleotides with phosphorothioate backbones designed using the Genbank c-raf sequence HUMRAFR. ON1 is targeted to the translation initiation site.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T59716-28 are preferred oligonucleotides which are targeted to mRNA encoding human raf and are capable of inhibiting raf expression compositions containing the oligonucleotides entrapped in sterically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Key
modified_base
Human c-raf kinase antisense oligo ISIS # 5074.
                                                                                   AAZ11512;
                                                                                                                            AAZ11512 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 16; Page 18; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1997-145363/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-SEP-1995;
01-AUG-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          anti-hyperproliferative;
                                           05-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hamilton KO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-JUL-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W09704787-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CIBA ) CIBA
                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                           \vdash
                                                                                                                                                                                                                                                                           GCATCAATGGAGC
                                                                                                                                                                                                                                 GCATCAATGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                inhibitor; antisense; liposome; cancer; abnormal expression;
                                                                                                                                                                                                                                                                                                                     l Similarity
13; Conser
                                                                                                                                                                                                                                                                                                                                                                                                      20 BP; 5
                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GEIGY AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Love WG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95GB-0019130
95GB-0015743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96WO-GB01775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers 1..20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                      A;
                                                                                                                                                                                                                                                                           13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oligonucleotide
                                                                                                                                                                                                                                                                                                                                      86.7%;
                                                                                                                                                                                                                                                                                                                                                                                                      5 C; 4 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "phosphorothioate backbone linkages"
                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nicklin PL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SS
                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                        Score 13;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                        6 T; 0 other;
                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                          No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Phillips
                                                                                                                                                                                                                                                                                                                     4.3e+02;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                DB 18;
                                                                                                                                                                                                                                                                                                                                                            Length 20
                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cancer
man raf
                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                       Gaps
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AAA73490/c
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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-NOV-1996;
31-MAY-1994;
31-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention provides antisense oligonucleotides targeted to mRNA encoding human raf and capable of inhibiting raf expression. The antisense oligonucleotides are useful for treating and diagnosing abnormal proliferative states and hyperproliferation (e.g. cancer, psoriasis, or blood vessel restenosis), and inhibiting raf expression. Sequences AAZII511-53 and AAZII555-573 represent antisense
                                                                                                                       Homo
                                                                                                                                                     Human; c-raf; protein kinase; antisense oligonucleotide; cancer; signal transduction; hyperplasia; pulmonary fibrosis; angiogenes psoriasis; atherosclerosis; smooth muscle cell proliferation; st restenosis; inflammatory disorder; tissue graft rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
          US6090626-A.
                                                                                       modified_base
                                                                                                                                           endotoxin shock; glomerular nephritis;
                                                                                                                                                                                                                Human
                                                                                                                                                                                                                                       28-NOV-2000
                                                                                                                                                                                                                                                                                 AAA73490 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                       oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oligonucleotides targeted to human diagnosing abnormal proliferative s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Boggs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ISIS-) ISIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US5952229-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                          13
                                                                                                                                                                                                                                                                                                                                                              GCATCAATGGAGC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1999-527018/44.
                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                          GCATCAATGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                c-raf kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RT,
                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Monia
                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                BP; 5 A; 5 C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PHARM INC
                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96US-0756806.
94US-0250856.
95WO-US07111.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96US-0756806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9;
                             /note= "All or some nucleotides are optionally with 2'.methoxyethoxy, or 2'.O-propyl modification. Also, optionally phosphodiester or phosphothioate backbone
                                                                                               Location/Qualifiers
                                                                         /*tag=
                                                                 mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                       for human
                                                                                                                                                                                                               antisense oligonucleotide #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29pp; English.
                                                                                                                                                                                                                                                                                                                                                                                               86.7%;
100.0%;
                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                 ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                      c-raf kinase.
                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                               Score 13;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                n raf mRNA useful for t
states and inhibiting
                                                                                                                                              22
                                                                                                                                                                                                                                                                                                                                                                                                          DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                 4.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                              (Isis #5074, #7835, #7843).
                                                                                                                                                                                                                                                                                                                                                                                                         Length 20
                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          for treating
                                                                                                                                                                              angiogenesis;
                              backbone
                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                   stenosis;
                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hyperplasias, pulmonary fibrosis, angiogenesis, psoriasis, atherosclerosis and smooth muscle cell proliferation in blood vessels e.g. stenosis or restenosis following angioplasty. Also, the present sequence may be useful for treating inflammatory disorders such as the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    play
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Boggs
                                                                                      07-OCT-1996;
                                                                                                                                       WO9714811-A1
                                                                                                                                                                             Synthetic
                                                                                                                                                                                                  ovary; bladder; head; neck; colon; comparative genome hybridisation;
                                                                                                                                                                                                               Human chromosome 20; position FLpter 0.825; PCR primer; probe; hybridisation; detection
                                                                                                                                                                                                                                                   Position FLpter 0.825 chromosome abnormality PCR forward primer
                                                                                                                                                                                                                                                                                                     AAX16583;
                                                                                                                                                                                                                                                                                                                             AAX16583 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence may be useful for treating inflammatory disorders graft rejection, endotoxin shock and glomerular nephritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                control. The present sequence is an antisense oligonucleotide. This sequence is targeted to human c-raf gene, resulting in c-raf expression inhibition. The present sequence may be useful for treating and raf-associated cell hyperproliferation conditions such as cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 31; Column 9; 31pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antisense oligonucleotides targeted to nucleic acid molecule encoding human raf useful for diagnosis, treatment of raf-associated cell proliferative conditions such as cancer, psoriasis or blood vessel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-MAY-1994;
31-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-AUG-1998;
                                   (REGC ) UNIV CALIFORNIA.
                                                              20-oct-1995;
                                                                                                               24-APR-1997
                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                            26-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                restenosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ISIS-) ISIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                           13
                                                                                                                                                                                                                                                                                                                                                                                                                   1 GCATCAATGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 f is a serine-threonine-specific protein kinase and is thought to a fundamental role in signal transduction, and cell proliferation
                                                                                                                                                                                                                                                                                                                                                                                           GCATCAATGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000-531424/48
                                                                                                                                                                                                                                                                                                                                                                                                                                            13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
             Gray JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP; 5 A; 5 C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94US-0250856.
95WO-US07111
                                                             95US-0546130
                                                                                      96WO-US16085
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Pred. No.
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             Ó
                                                                                                                                                                                                                 detection;
             Pinkel
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4.3e+02;
hes 0;
                                                                                                                                                                                                                            chromosome abnormality;
             Ò
                                                                                                                                                                                                                breast
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             Tanner
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Detection of abnormalities on human chromosome 20 at position 20q13 - is useful as indicator of presence of, e.g. primary breast tumours

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RESULT 15
AAX16555
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    position Fighter 0.825 on the human chromosome 20; and (11) detecting the binding of the probes to the target sequence 20; and (11) detecting the capital sequences to which the probes can hybridise. These nucleic acid sequences also represent PCR primers. The probes and method can be used to detect genomic amplifications in the 20q13 (especially the 20q13.2) amplicon, which is associated and indicative of the presence of a large number of cancers, e.g. primary tumours of breast, ovary, bladder, head and neck and colon cancers. The method uses the technique of comparative genome hybridisation (CH) which is able to reveal amplifications and deletions in genomic chromosomes irrespective of genome rearrangements. However CGH also provides a more quantitative estimate of copy number than, e.g. Southern hybridisation, and also provides the localisation of the amplified or deleted region in a normal chromosome. Fluorescent in situ hybridisation was further performed using locus specific probes to confirm the CGH data and to precisely map the region of the amplification.
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                              Detection of abnormalities on human chromosome 20 at position 20q13
                                                                   WPI; 1997-245126/22
                                                                                                   Collins C,
                                                                                                                                                                                                      07-OCT-1996;
                                                                                                                                                                                                                                        24-APR-1997.
                                                                                                                                                                                                                                                                          WO9714811-A1
                                                                                                                                                                                                                                                                                                                                                          PCR primer; probe; ovary; bladder; he
                                                                                                                                                                                                                                                                                                                                                          Human chromosome 20; position FLpter 0.825; chromosome abnormality; PCR primer; probe; hybridisation; detection; breast cancer; tumour; ovary; bladder; head; neck; colon; comparative genome hybridisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAX16555 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              about position FLpter 0.825 on the human chromosome 20. The metho comprises: (1) contacting a chromosomal sample from a patient wit least 1 labelled probe, which binds to a target sequence at about
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                   (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                     20-OCT-1995;
                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                             Position FLpter 0.825 chromosome abnormality PCR forward primer #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-APR-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 9 A; 2 C; 5 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A method has been developed for detecting chromosomal abnormalities at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 GAATCAATGGAGCA 17
                 is
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            useful as indicator of presence of, e.g. primary breast tumours
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13;
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                                                                                                 Gray JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                   95US-0546130
                                                                                                                                                                                                        96WO-US16085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82.7%;
92.9%;
                                                                                                 Kallioniemi O,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВP
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A method has been developed for detecting chromosomal abnormalities at CC about position Flpter 0.825 on the human chromosome 20. The method CC comprises: (1) contacting a chromosomal sample from a patient with at CC least 1 labelled probe, which binds to a target sequence at about 20 position Flpter 0.825 on the human chromosome 20; and (ii) detecting the 20 position Flpter 0.825 on the human chromosome 20; and (ii) detecting the 20 position Flpter 0.825 on the human chromosome 20; and (ii) detecting the 20 position flpter of the 20 position probes to the target sequence. AAX16549 to AAX16586 crepresent nucleic acid sequences to which the probes can hybridise. These nucleic acid sequences to which the probes can hybridise. These can be used to detect genomic amplifications in the 20 probes and method can be used to detect genomic amplifications in the 20 probes and method can be used to detect genomic amplification in the 20 probes and method can be used to detect genomic ancers. The method uses the technique of can be used to detect and colon cancers. The method uses the technique conformative genome hybridisation (CGH) which is able to reveal amplifications and deletions in genomic chromosomes irrespective of comparative genome hybridisation (CGH) which is able to reveal amplification be compared to compare than, e.g. Southern hybridisation, and also crowides the localisation of the amplified or deleted region in a normal company to the region of the amplification was further performed contant probability of the probes to confirm the CGH data and to precisely many the region of the amplification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 2; Page 14; 40pp; English.
                                                                  the region of the amplification.
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В Ş Matches Query Match Best Local 9 4 GAATCAATGGAGCA 1 GCATCAATGGAGCA Similarity Conservative 17 82.7%; 92.9%; 0; Score 12.4; Pred. No. 9. Mismatches DB 18; .6e+02; Indels 0;

Sequence 20 BP; 9 A;

2 C; 5 G; 4 T; 0 other;

Length

Gaps

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Search completed: October 24, 2002, 04:06:06 Job time : 56.7273 secs

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Copyright (c) 1993 - 2002 Compugen Ltd.
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ALIGNMENTS

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APPLICANT: Kasid, Usha
APPLICANT: Gokhale, Prafulla
APPLICANT: Dritschilo, Anatoly
APPLICANT: Rahman, Aqulur
TITLE OF INVENTION: Liposomes
NUMBER OF SEQUENCES: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Application US/08957327 Patent No. 6126965
                                                                                                                                                                                                                                          TELEFAX: (703) 591-442
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/957
APPLICATION UMBER: US/08/957
FILING DATE: 24-OCT-1997
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Hendricks, Glenna
REGISTRATION NUMBER: 32,535
REFERENCE/DOCKET NUMBER: kas1
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 1051-4470
TELECOMMUNICATION 1051-4470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LIEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                      TOPOLOGY: unknown MOLECULE TYPE: DNA HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: V
                                                                                                                                                                               LENGTH: 15 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
ch 100.0%;
1 Similarity 100.0%;
15; Conservative (
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P.O. Box 2509
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                                                                                                                                         DNA (genomic)
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591-4428
-- NO: 1:
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Score 15; DB 3; Length 15; Pred. No. 4.3; Indels
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US-09-078-954-15/c

; Sequence 15, Application US/09078954

; Patent No. 6287591
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US-08-957-327-3
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US-08-957-327-3
                                                                                                                                                  Patent No. 6287591
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
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TELEPHONE: (703) 591-4470
TELEPAX: (703) 591-4428
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: APPLICANT:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: DN
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 15 base pairs
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NAME: Hendricks, Glenna
REGISTRATION NUMBER: 32,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
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APPLICANT: Rahman, Agulur
TITLE OF INVENTION: Liposomes
                                                                        APPLICANT:
                                                                                                                     APPLICANT:
                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
               APPLICANT:
                             APPLICANT:
                                                                                        APPLICANT:
                                                                                                    APPLICANT:
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                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/957,327 FILING DATE: 24-OCT-1997 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: kasid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Fairfax
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                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
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                                                                                                                                                                                                                                                                        1 GCATCAATGGAGCAC 15
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5. 6126965
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                          Scherrer, Peter
Geiser, Timothy
                                                        Ansell, Steven M.
Cullis, Pieter
                                                                                        Hope, Michael J.
                                                                                                   Harasym,
                                                                                                                  SEMPLE, Sean C.
Klimuk, Sandra K.
                                                                                                                                                                                                                                                                                                                  Conservative
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            Gerald
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Pred. No.
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RESULT 4
US-09-482-084-1/c
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                                                                                                                                                                                                                                                                 Sequence 1, Application US/09482084
Patent No. 6333314
GENERAL INFORMATION:
APPLICANT: Kasid, Usha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 08/856,37
FILING DATE: 14-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: MARINAT INFORMATION:
REGISTRATION NUMBER: 32,038
REFERENCE/DOCKET NUMBER: INEX
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Word Perfect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3
COMPUTER: IBM COmpatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Oppedahl & Larson
STREET: PO Box 5270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
HYPOTHETICAL:
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OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
ZIP: 80443-5270
                                                                                                                                                                                                                                                                                                                                                                                                            1 GCATCAATGGAGCAC 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                        TITLE OF INVENTION: Liposomes contaiing Oligonucelotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic acid
                                                                                                          CITY: Fairfax
STATE: VA
                                                                             ZIP: 22031
                                                                                            COUNTRY:
                                                                                                                                         STREET: P.O. Box 2509
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                                                                                                                                                         ADDRESSEE: Hendricks and Assoc
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(970) 668-2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   yes
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Gokhale, Pra
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Rahman, Aqulur
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 4;
 Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 08/957,327
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Hendricks, Glenna
REGISTRATION NUMBER: 32,535
REFERENCE/DOCKET NUMBER: kasid
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 591-4470
TELEFAX: (703) 591-4428
INFORMATION. FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3, Application US/09482084 Patent No. 6333314 GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: 3:
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les 15; Conserv
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               TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 591-4470
TELEFAX: (703) 591-4428
                                                                                                                         APPLICATION NUMBER: 08/957,327
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                   APPLICATION NUMBER: US/09/482,084
FILING DATE: 13-Jan-2000
CLASSIFICATION: <UNKnown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: unknown MOLECULE TYPE: DNA (genomic) HYPOTHETICAL: NO ANTI-SENSE: YES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Liposomes containing Oligonucelotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Hendricks and Assoc.
STREET: P.O. Box 2509
CITY: Fairfax
                                                                                         NAME: Hendricks, Glenna REGISTRATION NUMBER: 32,535
                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: VA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/482,084 FILING DATE: 13-Jan-2000
                                                                       REFERENCE/DOCKET NUMBER: kasid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 15 base pairs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OF SEQUENCES:
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Dritschilo, Anatoly
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Pred. No.
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RESULT 6
US-08-756-806A-47/c
; Sequence 47, Application US/08756806A
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""+ant No. 5952229
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 Matches
                             Query Match
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                                                                                                                                                                             INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                   APPLICATION NUMBER: 08/250
FILING DATE: May 31, 1994
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,25
REFERENCE/DOCKET NUMBER: 12
                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/756,806A
FILING DATE: No. 5952229ember 26, 1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Monia, Brett P. and Boggs, Russell T.
TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
                                                                             TOPOLOGY:
ANTI-SENSE:
                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
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CORRESPONDENCE ADDRESS
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OPERATING SYSTEM: PC-DUS
OPERATING SYSTEM: WORDPERFECT 5.1
 Local Similarity
mes 15; Conserv
                                                                                                            STRANDEDNESS:
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les 15; Conservat
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                                                                                                                                          LENGTH:
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LENGTH: 15 base pairs
TYPE: nucleic acid
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MOLECULE TYPE: DNA (genomic)
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                                                                                                                           Nucleic Acid
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 Conservative
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                                                                                                           Single
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              100.0%;
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Score 15; DB 2
Pred. No. 4.5;
0; Mismatches
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Pred. No.
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                             DB 2; Length 20;
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RESULT o
PCT-US95-07111A-47/c
; Sequence 47, Application PC/TUS9507111A
; GENERAL INFORMATION:
    APPLICANT: Monia, Brett P. and Boggs, Russell T.
    APPLICANT: Monia, Brett P. and Boggs, Russell T.
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APPLICANT: Monia, Brett P. and Boyys, Nusser TITLE OF INVENTION: Antisense Oligonucleotide Modulation TITLE OF INVENTION: of raf Gene Expression NUMBER OF SEQUENCES: 54
CORRESPONDENCE ADDRESS:
ADDRESSE: Law Offices of Jane Massey Licata STREET: 210 Lake Drive East, Suite 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: May 31, 1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/250,856
FILING DATE: May 31, 1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
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APPLICATION NUMBER: 08/756,806
FILING DATE: No. 6090626ember 26, 1996
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MEDIUM TYPE: DISKETT
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TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
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STRANDEDNESS: Single
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1 Similarity 100.0%;
15; Conservative 0;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 6126965
GENERAL INFORMATION:
APPLICANT: Kasid,
APPLICANT: Gokhalı
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2,
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (609) 779-2400
TELEFAX: (609) 779-8488
INFORMATION FOR SEQ ID NO: 47:
                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOTTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/2
FILING DATE: May 31, 199
ATTORNEY/AGENT INFORMATION:
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OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDDERFECT 5.1
CURRENT APPLICATION DATA:
REFERENCE/DOCKET NUMBER: ka. TELECOMMUNICATION INFORMATION:
                                                                CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Dritschilo, Anatoly APPLICANT: Rahman, Agulur TITLE OF INVENTION: Liposomes
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STRANDEDNESS: Sing
                                NAME: Hendricks, Glenna REGISTRATION NUMBER: 32
                                                                                                 APPLICATION NUMBER: US/08/957,327 FILING DATE: 24-OCT-1997
                                                                                                                                                                                                                                                  COUNTRY:
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19 GCATCAATGGAGCAC 5
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REGISTRATION NUMBER: 32,2
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FILING DATE: May 31, 1995
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                                                                                                                                                                                                  Floppy disk
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Pred. No.
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Best Local Similarity
"atches 15; Conserv
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                                                                                      US-09-482-084-2
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Query Match
Best Local Similarity lov.
Thes 15; Conservative
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                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 591-4470
TELEFAX: (703) 591-4428
INFORMATION FOR SEQ ID NO: 2:
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APPLICATION NUMBER: US/09/482,084
FILING DATE: 13-Jan-2000
CLASSIFICATION: <Unknown>
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APPLICATION NUMBER: 08/957,327
FILING DATE: <Unknown>
ATTORNEY/AGENT_INFORMATION:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 25 base pairs
TYPE: nucleic acid
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ADDRESSEE: Hendricks and Assoc.
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                                                                                                                               HYPOTHETICAL: NO
                                                                                                                                             TOPOLOGY: unknown MOLECULE TYPE: DNA (genomic)
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                                                                                                   SEQUENCE DESCRIPTION: SEQ ID NO:
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REGISTRATION NUMBER: 32,535
REFERENCE/DOCKET NUMBER: kas
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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ZIP: 22031
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                      Score 15; DB 4; Pred. No. 4.7; Mismatches (
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Pred. No.
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US-08-756-806A-2/c
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US-08-250-856A-2/c
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                                                                                                                               Sequence 2, Application US/08756806A Patent No. 5952229 GENERAL INFORMATION:
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/250,856A
                                         APPLICANT: Monia, Brett P. and Boggs, Russell T.
TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
ADDRESSEE: Law Offices of Jane Massey Licata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: May 31,
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
                                                                                                                                                                                                                                                                                                                                                                                      ANTI-SENSE:
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ADDRESSEE: Law Offices of Jane Massey Licata
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OPERATING SYSTEM:
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                            STREET:
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Marlton
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                            66 East Main Street
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(609) 7/9-8488
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N: 435
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Pred. No.
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63;
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US-09-143-214-2/c
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Monia, Brett P. and Boggs, Russell T.
TITLE OF INVENTION: Antisense Oligonucleotide Modulation
TITLE OF INVENTION: of raf Gene Expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (609) 810-1454 INFORMATION FOR SEQ ID NO:
                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/756,806
FILING DATE: NO. 6090836ember 26,
APPLICATION NUMBER: PCT/US95/07111
                                                                                                                                             SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: PCT/US95/07111
FILING DATE: May 31, 1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/250,856
FILING DATE: May 31, 1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
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ANTI-SENSE:
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                                                                                                 CLASSIFICATION:
                                                                                                             APPLICATION NUMBER: US/09/143,214 FILING DATE:
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OPERATING SYSTEM:
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               DATE:
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                                                                                                                                                                                                                                                                                                                            Law Offices of Jane Massey Licata
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May 31, 1995
[ON DATA:
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APPLICANT: Love, William G
APPLICANT: Sharman, Thomas
APPLICANT: Sharman, Thomas
APPLICANT: Nicklin, Paul L
APPLICANT: Nicklin, Paul L
APPLICANT: Hamilton, Karen O
TITLE OF INVENTION: Liposomal Oligonucleotide Compositions
FILE REFERENCE: 4-20536/A/MA 2112
CURRENT APPLICATION NUMBER: US/09/000,136
CURRENT FILING DATE: 1998-04-23
EARLIER APPLICATION NUMBER: GB 9515743.4
EARLIER APPLICATION NUMBER: GB 9515743.4
EARLIER FILING DATE: 1995-08-01
NUMBER OF SEQ ID NOS: 25
SOFTMARE: Patentin Ver. 2.0
SEQ ID NO 1
                                PCT-US95-07111A-2/c

; Sequence 2, Application PC/TUS9507111A

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US-09-143-214-2
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FILING DATE: May 31, 1994
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,257
REFERENCE/DOCKET NUMBER: ISPH-0200
TELECOMMUNICATION INFORMATION:
TELEPHONE: (609) 779-2400
                                                                                                                                                                                                                                                              Query Match
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Best Local
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Matches 13; Conserv
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ORGANISM: Artificial Sequence
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TITLE OF INVENTION:
                     APPLICANT:
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Monia, Brett P. and Boggs, Russell T. VENTION: Antisense Oligonucleotide Modulation
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Pred. No.
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63;
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NUMBER OF INVENTION: Of raf Gene Expression
NUMBER OF SEQUENCES: 5

CORRESPONDENCE ADDRESS:
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COUNTRY: USA
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COUNTRY: USA
COUNTRY: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.1
CHERRY APPLICATION NUMBER: PCT/US95/07111A
FILLING DATE: M3 31, 199
CLASSIFICATION NUMBER: PCT/US95/07111A
FILLING DATE: M3 31, 199
CLASSIFICATION NUMBER: 108/250,856
FILLING DATE: M3 31, 199
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REFERENCE/DOCKET NUMBER: 13,1995
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